

TEAC[®]

A-7010SL A-7030SL

STEREO TAPE DECK
SERVICE MANUAL

PROPERTY OF DEPT. C-270
METROLOGY LAB.
DO NOT REMOVE
FROM AREA



NOTE, JUMPER PINS 1 & 11 OF REMOTE
PLUG, ON THE TAPE HEAD TO get
BENCH OPERATION

TEAC[®]

A-7010SL A-7030SL STEREO TAPE DECK SERVICE MANUAL



S/N 25426

7030GSL

RECORD HEAD
PINCH ROLLER

9-726-0303

08 APR 82
JFH

TEAC CORPORATION

SALES OFFICE:

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RECORD HEAD	5066721	\$ 68.10
PINCH ROLLER	5014020	\$ 8.70
7030GSL SERVICE MANUAL	51031222	\$ 15.00
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1 GENERAL DESCRIPTION

The basic A-7010/7030 tape decks have been on the market for approximately five years. During this period many design improvements have been incorporated. However the introduction of new tape products and improved recording techniques required extensive modifications and redesign. Therefore we have produced the new A-7010SL/7030SL to provide complete flexibility and proper utilization of the improved tape products and techniques.

The basic design of the A-6010SL is highly similar to that of the A-7010SL/7030SL, most information in this service manual may be applied to the A-6010SL.

This service manual provides adjustment and alignment procedures, schematic diagram and parts placement information and the proper procedures for obtaining necessary repair parts.

If adjustments or repair procedures are not clear or seem difficult to accomplish or should you desire more detailed technical information, please contact your nearest TEAC dealer, TEAC Corporation or affiliated corporations, address's of which are printed on the this manual.

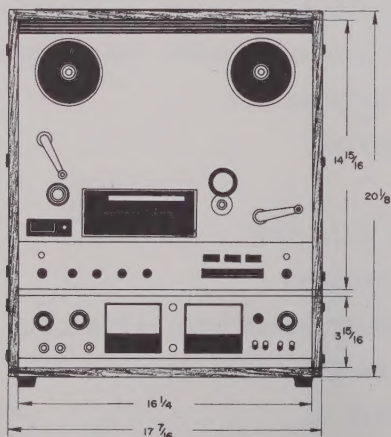
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2 SERVICE DATA

-MECHANICAL-

	A-7010SL	A-7030SL
HEADS:	Four separate heads assembled in plug in unit. 4 track; Erase 1.8 kohms/100 kHz, erase current approx. 35 mA. 4 track; Record 10 kohms/10 kHz, bias current approx. 2.1 mA 4 track; Forward/Reverse playback 3.5 kohm/1 kHz -63dB	Four separate heads assembled in plug in unit. Standard; 2 track erase 2 track record 2.4 track playback With optional THA-75 head assy; 4 track erase 4 track record 4 track forward playback 2 track forward playback Erase; 2.2 kohms at 100 kHz, Erase current; approx. 35 mA Record; 1.6 kohms at 10 kHz, Bias current; approx. 1.1 mA
REEL SIZE:	10-1/2" maximum NAB reel	10-1/2" maximum NAB reel
TAPE WIDTH:	Standard 1/4 inch tape	Standard 1/4 inch tape
tape speed;	7-1/2 ips and 3-3/4 ips (0.5%)	15 ips and 7-1/2 ips (0.5%)
MOTORS:	1- 4/8 pole dual speed hysteresis synchronous motor for capstan drive. 2- Six pole eddy current motors for reel drive.	1- 4/8 pole dual speed hysteresis synchronous motor for capstan drive. 2- Six pole eddy current motors for reel drive.
FAST WINDING TIME:	Approx. 200 seconds for 3600 ft (10" NAB reel)	Approx. 200 seconds for 3600 ft (10" NAB reel)
WOW AND FLUTTER:	0.06% at 7-1/2 ips 0.09% at 3-3/4 ips	0.04% at 15 ips 0.06% at 7-1/2 ips
	Wow and flutter measured according to weighted NAB standard using TEAC flutter free tape.	
OPERATING POSITION:	Horizontal or vertical.	Horizontal or vertical.
POWER REQUIREMENT:	100/117/200/220/240V AC 50/60Hz 150W	100/117/200/220/240V AC 50/60Hz 150W
WEIGHT:	52 lbs(net)	52 lbs(net)



D-0496

Fig. 2-1 Dimensions

Specifications and components subject to change without notice.

ELECTRICAL

Transistors: 2SC1000BL x 2 2SC733Y or 2SC536F x 5
2SA572YL4 x 2 2SC971 x 2
2SC536F x 2 2SD235 x 1
2SC693F x 2 2SA494Y x 2

IC: IC101/201 TEAC 42709
IC102/202 TEAC 42709
IC103/203 TEAC 42710

Diodes: SIB01-02 x 5, SIB01-06 x 8

Frequency Response: Overall from recording INPUT to playback
OUTPUT.
A-7010SL
7-1/2 ips, ± 2 dB 30Hz - 20kHz
3-3/4 ips, ± 2 dB 40Hz - 7.5kHz
A-7030SL
15 ips, ± 2 dB 30Hz - 22kHz
7-1/2 ips, ± 2 dB 30Hz - 20kHz

Equalization: NAB equalization
15 ips, 7-1/2 ips 50u sec.
3-3/4 ips 90u sec.

Input: MIC: 600 ohms, -70dB(0.25mV)
LINE: 50,000 ohms or more, 0.1V

Output: LINE: 0.3V for load impedance of 10,000 ohms
or more.
HEADPHONES: 8 ohms

Bias Freq.: 100 kHz push-pull oscillator

Signal to Noise Ratio: 46dB or more at 3-3/4ips
48dB or more at 15, 7-1/2ips
peak record level to unweighted noise

Cross talk Rejection: Channel to channel at 1kHz/45dB or more
Adjacent track at 100Hz/40dB

Erase Efficiency: 65dB or more at 7-1/2 ips, 15 ips(A-7030SL)

These specifications are indispensable information and are required to service the equipment properly. They may differ slightly from those printed in the advertising brochures or the operation manual.

NOTE

As a result of continuing changes and improvements during the production run, minor differences may be found between early and later machines, refer to manual change sheets for information concerning modifications.

3 EQUIPMENT REQUIRED

FOR MECHANICAL MEASUREMENT

SPRING SCALE: 0 - 3 kg (0 - 8 lbs)
0 - 300 g (0 - 10 oz)

TEST TAPE: TEAC YTT-2003 (7-1/2 ips)
TEAC YTT-2002 (3-3/4 ips)

FLUTTER METER: SENTINEL INC FL-3D-1

DIGITAL FREQ. COUNTER: Capable of 0 to 5 kHz indication.

TOOLS: General, 2 mm nut driver, Hex head
Allen wrench

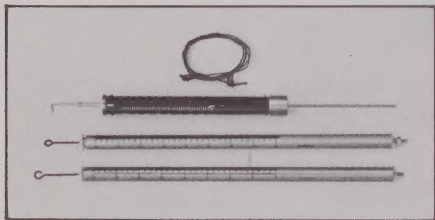


Fig. 3-1 Spring Scale

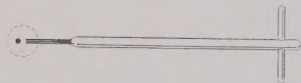


Fig. 3-2 TEAC Hex Allen Wrench



Fig. 3-3 TEAC Test Tapes

FOR ELECTRICAL MEASUREMENT

TEST TAPE: TEAC YTT-1004 for 15 ips (A-7030SL only)
TEAC YTT-1002 for 3-3/4 ips (A-7010SL only)
TEAC YTT-1003 for 7-1/2 ips

SCOTCH 203 and 150 for recording test.

EMPTY REELS: TEAC RE-702 (2" hub)
TEAC RE-701 (4" hub)

TEST SET: TEAC M-826A test set

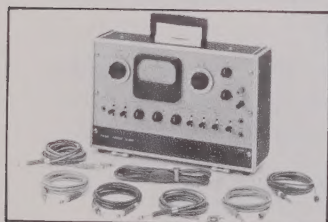


Fig. 3-4 TEAC Test Set

NOTE

Use of the TEAC M-826A test set is recommended. This set incorporates an AC VTVM, Audio Oscillator, Channel Selecting switch, Variable Attenuator, Monitor Speaker and Cables.

TEAC M-826A measures the RMS value of the Voltage (0 dB = 0.775 V). Characteristics of this test set are similar to the standard VU-meter.

BAND PASS FILTER: TEAC M-206A (1 kHz)

VTVM: hp model 4302B or equivalent

RESISTOR: Non inductive type 8 ohm/1 W

OSCILLOSCOPE: General purpose

4 PARTIAL DISASSEMBLY

CAUTION

Do not attempt complete disassembly of any of the subassemblies.

The list of individually replaceable parts in the exploded view should be used as a guide to disassembly limits.

Tape Transport:

1. Remove power cord and other connecting cords.
2. Lay the equipment face down on a soft mat.
3. Remove the 2 rear cover screws.
4. Remove 3 upper screws on both sides of the case.
5. Lift the case from the transport.

Amplifier:

1. Remove 2 screws on both sides of the case.
2. Lift the amplifier from case.

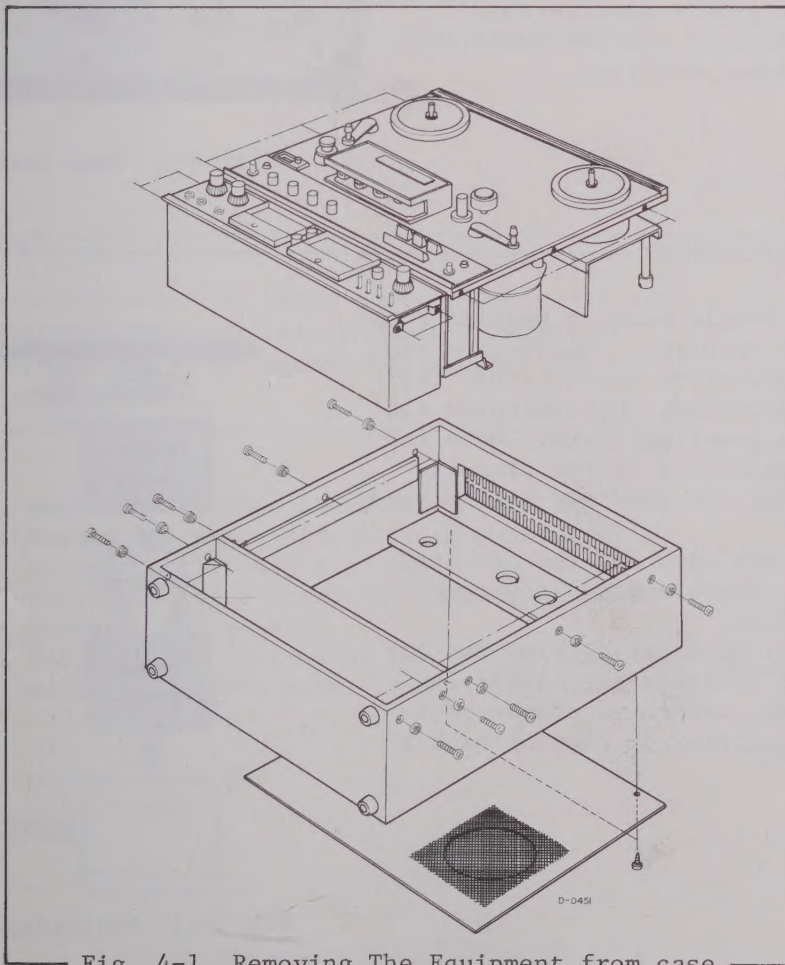


Fig. 4-1 Removing The Equipment from case

HEAD REPLACEMENT

CAUTION

Power to the unit must be switched off when removing the heads, this to prevent transient pulses from passing through the heads causing strong magnetization or damage to the delicate windings. After head replacement, thorough demagnetization is recommended.

NOTE

The heads of the A-7010SL/7030SL can be changed either as a complete assembly or individually as necessary.

HEAD ASSEMBLY REPLACEMENT

To change the head assembly as a unit, remove the four mounting screws, (two on each end).

Note the positions of the wires on the circuit board before unsoldering. Solder the wires of the new heads in exactly the same positions.

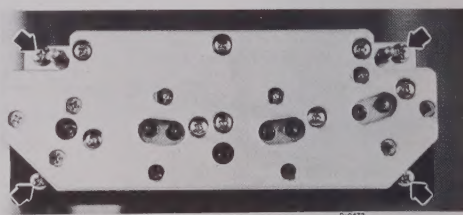


Fig. 4-2 Head Assy

INDIVIDUAL HEAD REPLACEMENT

To replace a single head, a special 2 mm nut driver is required. Remove the two nuts on the defective head through the access hole provided, this releases the head from the mounting plate. Note the position of the wires on the circuit board. Connect the new head in the same manner.

Replace the nuts securing the new head to the plate, perform head alignment before operation.

Head installation mounting provides for left or right positioning. After installing heads, determine proper position while recording or playing back a tape.

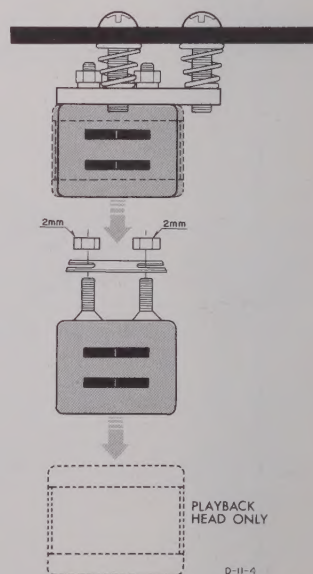


Fig. 4-3 Individual Heads

CAPSTAN MOTOR

1. Remove the fan.
2. Remove the capstan belt.
3. Remove the top @ spring clips holding mount stand offs.
4. Remove the four screws holding the motor and shield plate. -(top)
5. Unsolder the six wires connecting the capstan motor.
6. Remove the four screws holding the motor and shield plate. -(bottom)
7. Loosen the two set screws (HEX HEAD) in pulley and lift off pulley.

NOTE

After motor replacement, check position of capstan pulley on shaft for proper alignment with belt guide.

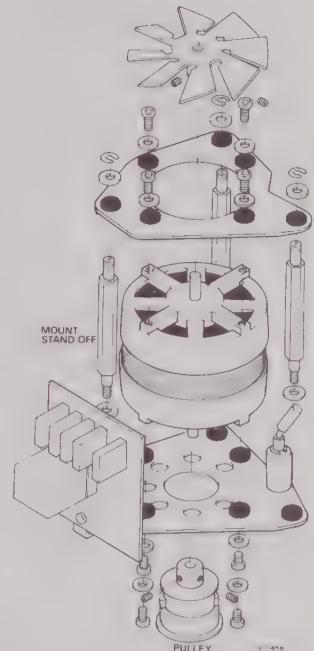


Fig. 4-4 Capstan Motor Removal

REEL MOTOR

NOTE

Reel motor assemblies are mirror images of each other, these assemblies are not interchangeable.

1. Remove the rubber insert from reel table.
2. Remove the three screws holding reel table to motor, lift off reel table.
3. Remove the four screws holding the reel motor to the mount.
4. Unsolder the four wires connecting the reel motor and remove motor from the chassis.

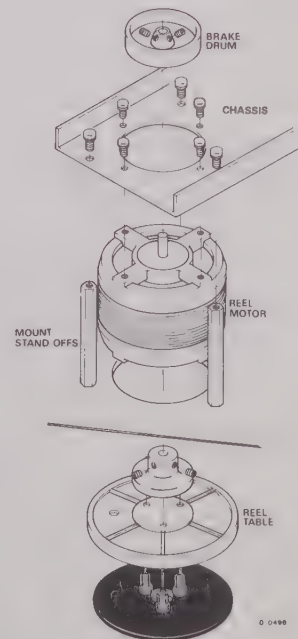


Fig. 4-5 Reel Motor Removal

CAPSTAN ASSEMBLY

CAUTION

A clearance of 0.01" must be maintained between the flywheel and capstan assembly.

1. Unscrew capstan cover (front panel).
2. Remove two screws from rear bracket, allow bracket to drop forward floor of case.
3. Remove capstan belt.
4. Loosen two screws in capstan assy flywheel.
5. Remove three screws in capstan assy.
6. Gently move capstan assy up and down until it slides out of panel.

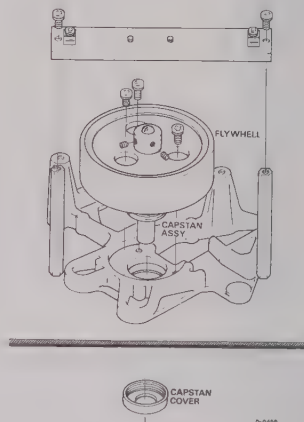


Fig. 4-6 Capstan Assy Removal

TENSION ARM ASSY -LEFT-

1. Remove coil spring.
2. Unscrew spring rod.
3. Remove the brass collar and washer.
4. Unsolder the two wires (1 white, 1 black) from terminal strip.
5. Lift out tension arm.

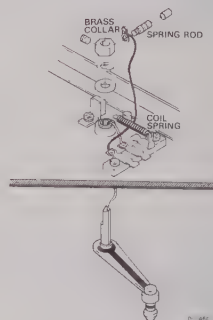


Fig. 4-7 Tension Arm Removal -Left-

TENSION ARM ASSY -RIGHT-

1. Remove coil spring.
2. Loosen set screw in retainer assy.
3. Remove retainer assy and washer.
4. Lift out tension arm.

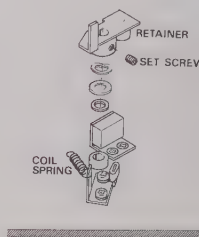


Fig. 4-8 Tension Arm Removal -Right-

5 HEAD MECHANICAL ALIGNMENT

NOTE

Head alignment is adjusted at the factory to very critical tolerances. Normally HEAD ASSEMBLY replacement will require only minor alignments or adjustments. Complete readjustment should only be necessary after an individual head is replaced. The adjustments are made as follows:

ERASE HEAD SECTION

The erase head pole should be above the edge of a threaded tape by the width of heavy pencil line.

RECORD HEAD SECTION

The record head pole should be above the edge of a threaded tape by the width of a thin pencil line.

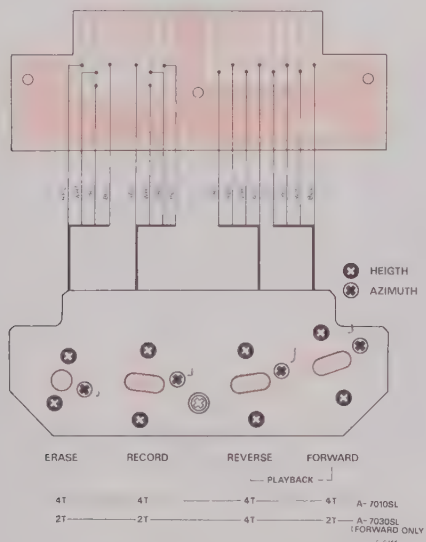


Fig. 5-1 Head Alignment And Adjustable Screw

PLAYBACK HEAD -FORWARD-

The pole of the playback head should be even with the top of a threaded tape.

PLAYBACK HEAD -REVERSE- (A-7010SL only)

The pole of the playback head should be even with the bottom of a threaded tape.

NOTE

Azimuth adjustments are given in the section on MEASUREMENT AND ADJUSTMENT -ELECTRICAL-

6 MEASUREMENT AND ADJUSTMENT

- MECHANICAL -

NOTE

The TEAC A-7010SL/7030SL uses a highly reliable three motor drive system and should require a minimum of mechanical maintenance or adjustment.

These adjustments are made at the factory. Readjustment should only be required after many hours of operation or component replacement.

PINCH ROLLER PRESSURE

NOTE

Pinch roller pressure is supplied by pinch roller spring arm only and it is most important that the solenoid plunger be fully bottomed before taking pressure measurement.

1. Load tape or lock the shut-off arm in the on position.
2. Attach a suitable spring scale to the pinch roller shaft.
3. Place the unit in the (▶) PLAY mode, and holding the spring scale as illustrated, slowly draw it away from the pinch roller.
4. Do not allow the string to rub against the pinch roller.
5. Note the reading on the spring scale at the instant the pinch roller stops rotating.
6. The scale should indicate 2.8 - 3.1 kg (6.6 - 7.2 lbs). Optimum value is 3.0 kg.
7. If adjustment is necessary, adjust the take-up double nut on the CAPSTAN SOLENOID.

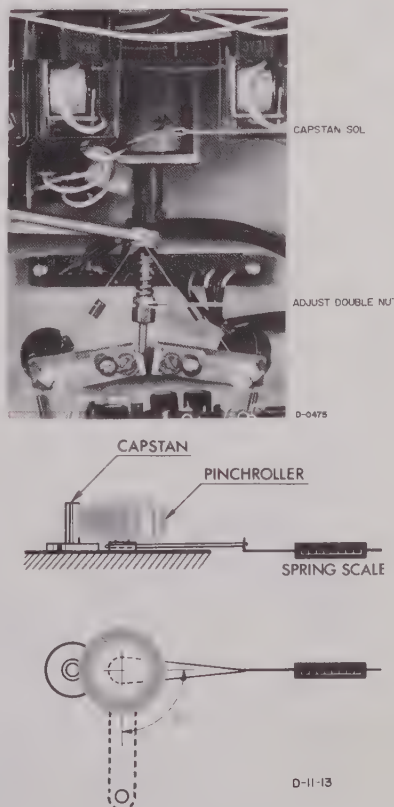


Fig. 6-1 Pressure Measurement
-Pinch Roller-

TORQUE MEASUREMENT PROCEDURE

NOTE

Be sure the full required line voltage is applied and that the unit is set to the proper line frequency.

Supply and take up motor torques should be within the limits listed in the chart below.

A-7010SL

REEL SIZE	FORWARD		REVERSE	
	LEFT (B·T)	RIGHT (T·U)	LEFT (T·U)	RIGHT (B·T)
LARGE(10 inch)	300 - 330 g/cm	800 - 850 g/cm	800 - 850 g/cm	400 - 430 g/cm
SMALL(7 inch)	200 - 220 g/cm	500 - 550 g/cm	500 - 550 g/cm	170 - 190 g/cm
ADJUSTMENT	R-5(B)	R-4(A)	R-5(A)	R-4(B)

A-7030SL Forward Play Only

REEL SIZE	FORWARD	
	LEFT (B·T)	RIGHT (T·U)
LARGE(10 inch)	250 - 270 g/cm	1,000 - 1,050 g/cm
ADJUSTMENT	R-4(B)	R-5(B)
SMALL(7 inch)	150 - 170 g/cm	400 - 430 g/cm
ADJUSTMENT	R-4(A)	R-5(A)

NOTE: (B·T) BACK TENSION
(T·U) TAKE UP

BACK TENSION -Forward-

1. Block the shut-off arm in the on position.
2. Place REEL SIZE switch to LARGE position.
3. Place an empty 10" reel on left reel table.
4. Rotate the reel and wind several turns of string around the hub.
Attach spring scale to string.
5. Place the unit in the (▶) play mode.
6. Pull the scale away from the reel against the motor torque, with a smooth steady motion.
7. Note the scale reading while it is in steady motion.
8. Make sure the string does not rub against the reel flanges.
9. If necessary, adjust resistors until a scale reading within the limits listed in the chart is obtained.

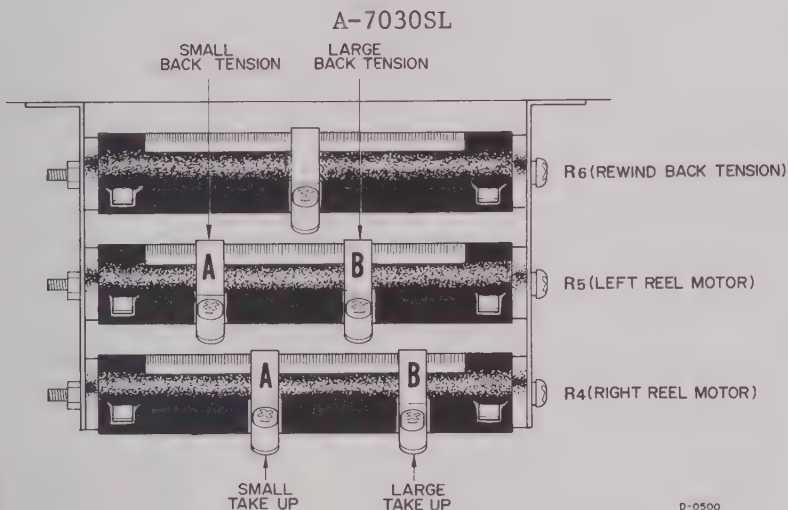
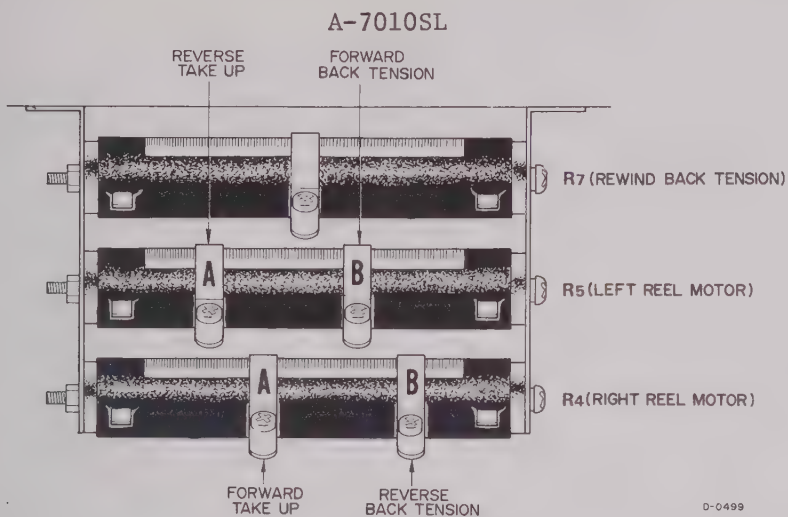


Fig. 6-2 Adjustable Tension Resistor

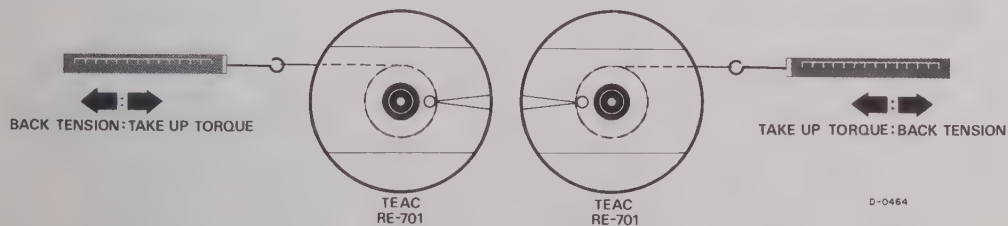


Fig. 6-3 Torque Measurement

Reverse: (7010SL only)

10. To check the reverse back tension, place the reel and spring scale on the right reel table (see figure) and repeat above procedure pressing (◀) play button.
11. If necessary, adjust resistors until a scale reading within the limits listed in the chart is obtained.

TAKE-UP TORQUE -Forward-

1. Place the empty reel and attached spring scale on the right reel table.
2. Place the unit in the (▶) play mode.
3. Allow the rotation of the reel to slowly draw the scale toward the hub.
4. Hold the spring scale with enough force to allow a steady reading.
5. If necessary, adjust resistors until a scale reading of within the limits listed in the chart is obtained.

Reverse: (7010SL only)

6. Place the empty reel and spring scale on the left reel table and select (◀) reverse play mode.
7. The measurement of reverse take-up torque is as above with the exception that rotations are clockwise.
8. If necessary, adjust resistors until a scale reading of within the limits listed in the chart is obtained.
9. Place the REEL SIZE switch in the SMALL position.
10. Place an empty 7" reel on the unit.
11. Adjust as in LARGE position (see limits listed in the chart).

NOTE

A-7030SL

Plays only from left to right, therefore reverse play measurements are not applicable.

REWIND BACK TENSION

1. Load a full 1,800 ft reel of tape on the right reel table.
2. Place the empty reel with 2" hub on the left reel table.
3. Place the unit in the fast rewind mode, (◀).
4. Attach scale to right tension arm tape guide, exert steady pull on scale until tension arm begins to move to the right at this point. A reading of 50 ± 10 g (0.7 oz-inch) should be obtained. If different adjust resistor A-7010SL(R-7), A-7030SL(R-6) slider to obtain proper reading.

NOTE

The brake torque is actuated mechanically. Pressure is set by the variable spring force. While making this measurement and adjustment, be careful not to bend the brake bands. As brake torque will change with cleaning, brake drums and brake shoes should be cleaned only when absolutely necessary. If cleaning is required, use TEAC cleaner TZ-251B only. After cleaning operate the machine for some time before performing the below procedures.

1. Brake adjustments are made with no power applied to the unit.
2. Place an empty 4" hub reel on the left reel table, and fasten one end of a 30" length of string to the reel anchor.
3. Wind several turns of string counterclockwise around the hub and attach a suitable spring scale to the free end of the string.
4. Pull the spring scale away from the reel, making sure that the string does not rub the reel flanges.
5. Take a reading only when the reel is in steady motion since the force required to overcome static friction will produce a false, excessively high initial reading.
6. The reading should be 1,870 - 1,920 g/cm (26 - 27 oz-inch).
7. If different, Brake Torque will normally be adjusted by means of the adjustable nuts attached to the brake springs. In cases of extreme wear the coarse adjustment at the opposite end of the brake shoe may be repositioned by loosening the screws and sliding the brake shoe bracket to the left.

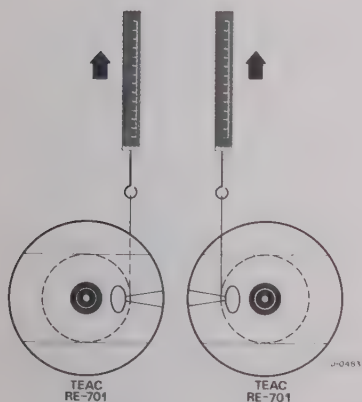


Fig. 6-4 Torque Measurement
-Brake-

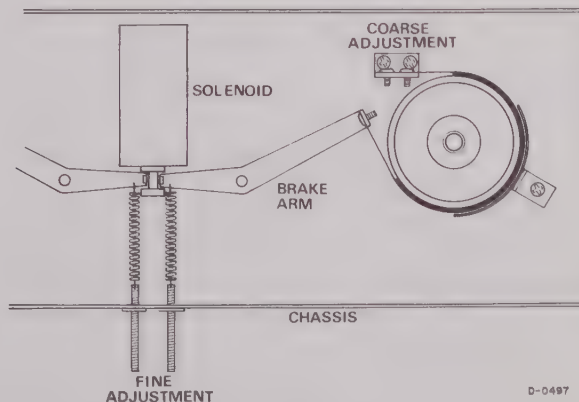


Fig. 6-5 Adjustable Location
-Brake-

IMPORTANT

The difference in torque between the right and left brake should be kept within 50g(0.7oz-inch).

FLUTTER

Flutter should be measured in playback mode using a TEAC flutter free tape YTT-2003·2002 and a Sentinel Inc model FL-3D-1 flutter meter.

Measurement of flutter should be made in accordance with NAB standards.

Values obtained by a different standards or equipment cannot be compared.

Flutter should not exceed:

A-7010SL	A-7030SL
7-1/2 ips : 0.06%	7-1/2 ips : 0.06%
3-3/4 ips : 0.09%	15 ips : 0.04%

These figures apply to any tape position and direction (such as full take-up reel, full supply reel or about mid point). If flutter is excessive, refer to trouble shooting chart in this manual.

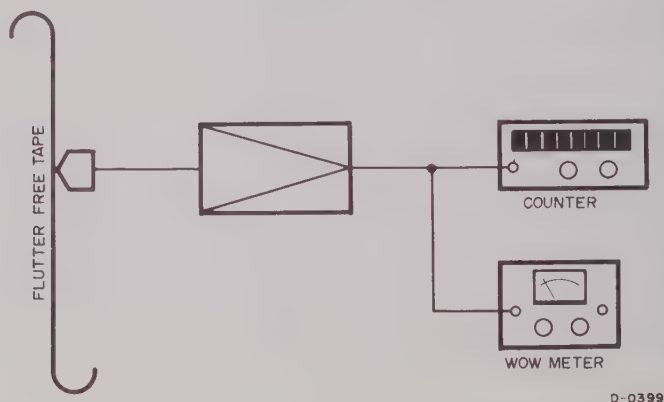


Fig. 6-6 Test Equipment Set-Up Flutter And Tape Speed

TAPE SPEED

The tape speed should be measured using TEAC flutter free tape, model YTT-2003·2002.

These tapes contain a highly accurate 3 kHz tone.

Connect a digital frequency counter to either line LINE OUT jack.

The indicated frequency should be 3 kHz 0.5% for all speeds.

FAST WIND TIME

NOTE

Clean all tape guide components and check for proper AC line voltage.

Using a 3,600 ft tape on a 10-1/2" reel, the fast wind time (fast forward or fast rewind) should be 200 seconds or less.

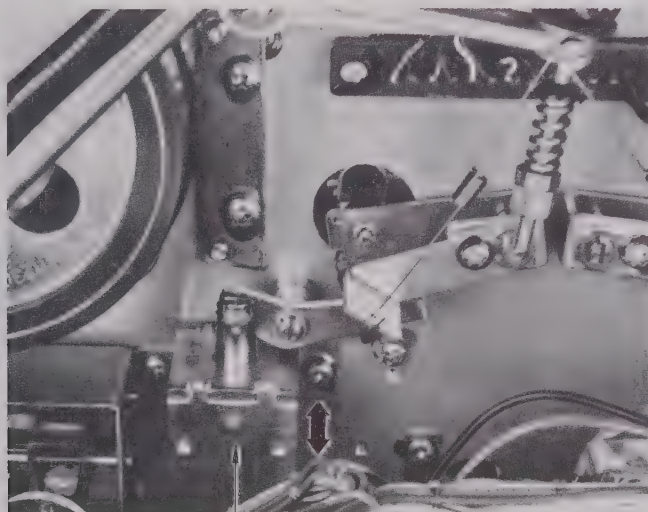
CUE Button (A-7030SL only)

Cueing button (CUE), used during fast wind modes to locate program material. Retracts the automatic tape lifters when depressed.

NOTE

Decrease OUTPUT level before using this button, excessive signals during fast wind could damage speakers or cause VU meters to scale out or peg.

If tape lifters fail to retract fully when CUE button is depressed adjust the tape lifter solenoid position.



LIFTER SOLENOID

D-0503

Fig. 6-7 Adjustable Lifter Solenoid

VOLTAGE AND FREQUENCY CONVERSION

Unit must be set to the power line frequency available. Improper frequency setting will result in a 20% error between the tape speed and reel motors torque.

NOTE

US model is preset to 117 V AC and 60 Hz. A-7010SL/7030SL. If it should be necessary to convert the A-7010SL/7030SL deck to operate from a power source of different voltage or frequency, it may be easily accomplished as follows:

Voltage Conversion:

The A-7010SL/7030SL may be set for 100, 117, 200, 220 or 240 volts. To change the voltage unscrew the fuse in the center of the voltage selector plug. Pull out the plug and reinsert it so the desired voltage shows in the cut-out. Reinstall the fuse.

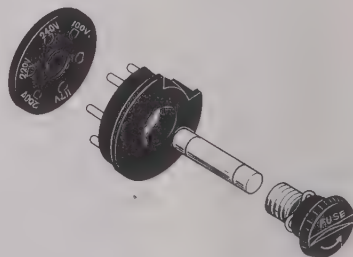


Fig. 6-8 Voltage Conversion

Frequency Conversion:

1. Disconnect power cord and remove rear deck cover.
2. Set frequency selector switch (above motor) to the required frequency.
3. Loosen red washered screw holding frequency shift lever in position.
4. While manually rotating the motor counterclockwise push frequency lever in for 50 Hz - pull out for 60 Hz operation. This lever changes the belt to the proper pulley steps.
5. Tighten the red washered screw to lock frequency shift lever into position.

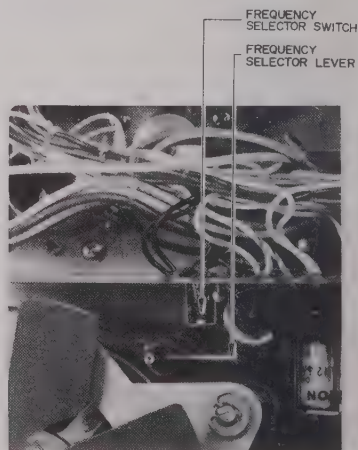


Fig. 6-9 Frequency Conversion

7 MEASUREMENT AND ADJUSTMENT

-ELECTRICAL-

GENERAL NOTICE

Before performing maintenance on this unit, thoroughly clean and demagnetize the entire tape path.

It is important that the unit be set to the proper voltage and frequency for your locality.

TEAC specified standard test tapes and test equipment must be used when performing maintenance to insure reliable results.

Procedures for checks and adjustments, unless otherwise indicated, are for the left channel at a tape speed of 7-1/2 ips. The same procedures are to be applied to the right channel and again for both channels at 3-3/4 ips (A-7010SL), 15 ips (A-7030SL), and both directions of playback.

All controls mentioned in this book will be printed in bold letters and will be exactly as they appear on the unit.

Double designated symbol numbers refer to left channel/right channel.

T H D : Third Harmonic Distortion.

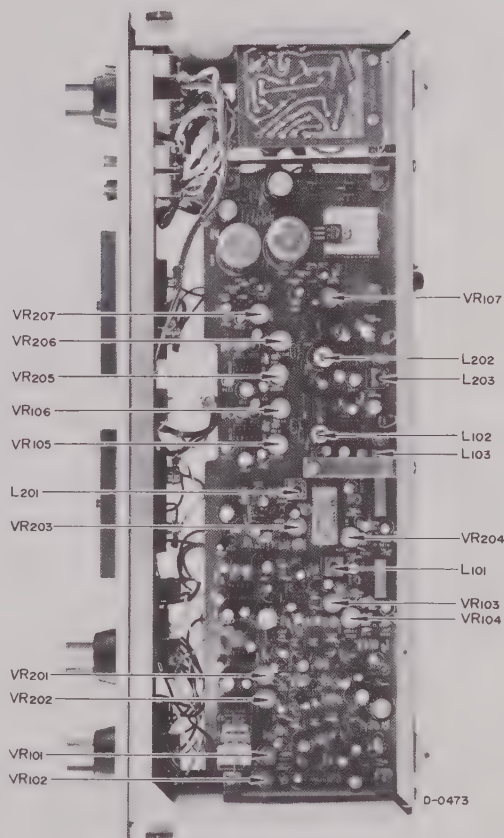


Fig. 7-1 Adjustable Parts Location

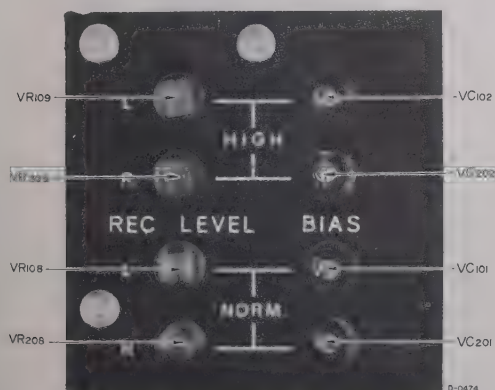


Fig. 7-2 REC Level Bias Adjustable Location

NOTE

HIGH For use with high performance tapes such as Scotch 203 or BASF LP-35LH.
NORMAL: For use with conventional tape such as Scotch 150 or equivalent.

VR 103/203 PLAYBACK LEVEL SET
 VR 104/204 VU METER CAL. -NORMAL-
 VR 107/207 VU METER CAL. -HIGH-
 VR 101/201 PLAYBACK EQ. (7-1/2 ips) (15 ips)
 VR 102/202 PLAYBACK EQ. (3-3/4 ips) (7-1/2 ips)
 VR 105/205 INPUT LEVEL SET
 VR 106/206 VU METER CAL. -INPUT-
 L 103/203 BIAS TRAP -REC AMP-
 L 101/201 BIAS TRAP -LINE OUT-
 L 102/202 REC EQ. FOR 7-1/2 ips, 15 ips

VC 102/202 HIGH, BIAS ADJ.
 VC 101/201 NORMAL, BIAS ADJ.
 VR 109/209 HIGH, REC LEVEL SET
 VR 108/208 NORMAL, REC LEVEL SET

[illegible]

Fig. 7-3 Simplified Diagram -Playback-

PLAYBACK HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

1. Connect a level meter to either LINE OUT jack.
2. Thread a TEAC test tape YTT-1003, YTT-1004(A-7030SL) on the unit.
3. Play the 15 kHz test tone in section 2 of the test tape.
4. Slowly rotate the azimuth screw until maximum indication is obtain on the level meter. Repeat step 4, procedure for reverse head or 4 track head (A-7030SL)

NOTE

If during playback, a slight pressure on the heads results in a rise of the reading of the level meter, head alignment adjustments should be accomplished.

Fine Adjustment

CAUTION

After coarse adjustment, do not make large corrections, turn azimuth screw 1/4 turn or less.

5. It is absolutely essential to accomplish the coarse adjustment before using this method to avoid phase errors larger than 45°.
6. Connect the test equipment as shown in Fig. 7-11.
7. Play a 10 kHz signal and adjust the azimuth screw until the oscilloscope shows that the signals are less than 45° in phase. Repeat above step for reverse head 4 track head (A-7030SL)
8. Secure the screw with a drop of LOCTITE.

SPECIFIED OUTPUT LEVEL SET

NOTE

Connect a 10 kohm load to the LINE OUT jacks when not using the TEAC M-826A output meter.

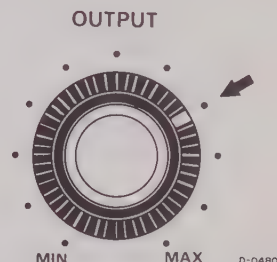
9. Play the 400 Hz tone in section 1 of the test tape. This tone is recorded at operating reference level (1% of the THD level).
10. Turn the OUTPUT controls to the two o'clock position.
11. Adjust VR 103/203 for -8 dB reading on level meter.

NOTE

Level differences during forward and reverse playback should not exceed 2 dB. If larger, clean and demagnetize heads, check the head alignment.

IMPORTANT

This is the specified output level set. Do not disturb this setting until the remaining adjustments have been completed.



VU METER CALIBRATION -PLAYBACK-

12. While playing the 400 Hz tone(1% THD) in section 1 of the test tape, RECORD LEVEL switch in NORMAL, adjust VR 104/204 for reading of 0 VU on the VU meter. *BOTTOM SCALE*
- RECORD LEVEL switch in HIGH, adjust VR 107/207 for reading of -3 VU on the VU meter. *BOTTOM SCALE*

FREQUENCY RESPONSE

13. Play the test tons from 15 kHz down to 40 Hz at 7-1/2ips, and 20 kHz down to 30 Hz at 15ips. (Recorded at 10 dB below operating reference level.)
14. Compare the readings obtained on the level meter with the response limits given in Fig. 7-4.
15. If adjustment is required, adjust VR 101/201 at 7-1/2 ips(7010SL), 15 ips(7030SL) and VR 102/202 at 3-3/4 ips(7010SL), 7-1/2 ips(7030SL). Adjust these trimmers for most even VU meter readings above 7.5 kHz, trying to bring them as close as possible to the 400 Hz reference reading.

NOTE

Setting of VR 101/102 should be done in forward mode, at 7-1/2 ips (7010SL), 15 ips(7030SL). Do not adjust in reverse mode or at low speed.

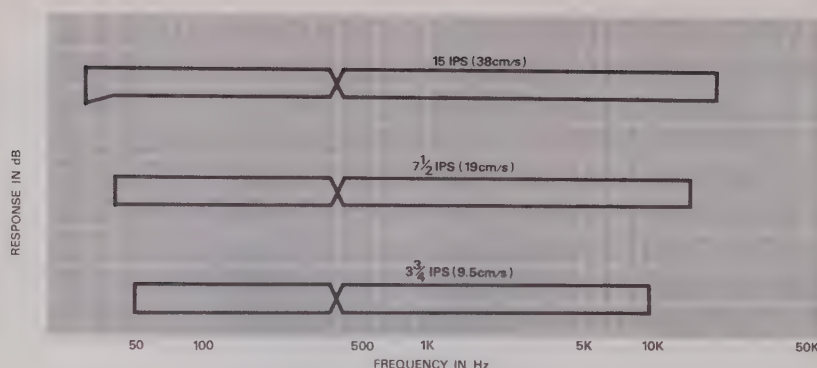


Fig. 7-4 Frequency Response Limits -Playback-

LEVEL VARIATION

16. With a level meter connected to the LINE OUT jacks and using the TEAC test tape the readings listed below should be obtained at the specified frequency and tape speed.

A-7010SL

7-1/2 ips: 0.5 dB at 400 Hz
1.0 dB at 15 kHz
3-3/4 ips: 1.0 dB at 10 kHz

A-7030SL

15 ips: 1.0 dB at 20 kHz
7-1/2 ips: 1.0 dB at 15 kHz

SIGNAL TO NOISE RATIO

IMPORTANT

Output control should be at specified output level.
The signal to noise ratio must meet factory standards.
The values given are obtained using an unweighted level meter while the supply and take up motors are running.
The values are with reference to a 3% THD level.

1. Thread a tape on the unit, leaving the tape outside the capstan and pinch roller.
2. Place the unit in the PLAY mode (▶) (the tape will not move).
3. The level meter connected to the LINE OUT jacks should indicate 58 dB or less.
4. This corresponds to a signal to noise ratio of 50 dB (difference between residual noise -58 dB and specified output level -8 dB for 1% THD).

For a 3% THD signal to noise ratio, 6 dB is added, giving 54 dB (3% THD is 6 dB above 1% THD level).

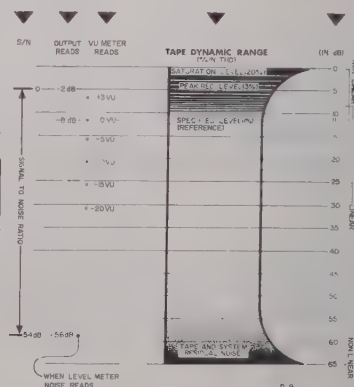


Fig. 7-5 Signal/Noise Computation ▶

MONITOR PERFORMANCE

MINIMUM INPUT LEVEL ADJUSTMENT

LINE Input

1. Connect an AF oscillator to the LINE IN jacks.
2. Apply a 400 Hz signal at -18 dB.
3. Place the MONITOR switch in the SOURCE position and turn the LINE *IN* controls fully clockwise.
4. Adjust VR 105/205 to obtain a specified output level of -8 dB at LINE OUT jacks.

MIC Input

5. After adjusting VR 105/205, apply a 400 Hz signal at -70 dB to the MIC IN jacks.
6. Rotate the MIC controls fully clockwise.
7. The output should be -8 dB (specified output level).

NOTE

Mic input requires no adjustment, only an operational check. After completing the check rotate mic controls fully counter-clockwise to eliminate noise from mic jacks or mic preamplifiers.

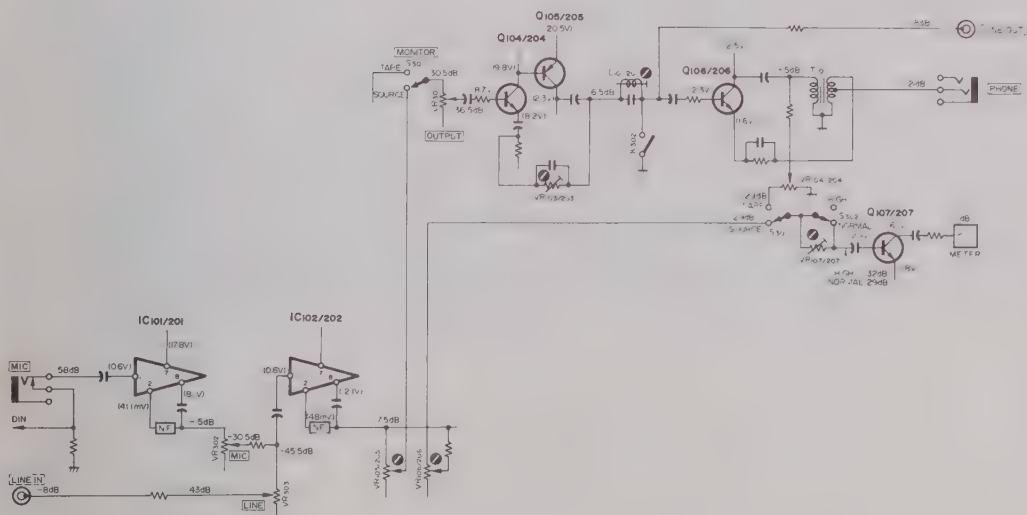


Fig. 7-6 Simplified Diagram -Monitor-

SPECIFIED INPUT LEVEL SET

8. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
9. Adjust the LINE controls with reference marks aligned for -8 dB at the LINE OUT jacks.

NOTE

Do not disturb the specified input level position of these controls until the remaining checks and adjustments are completed.

The difference between the channels must not exceed 2 dB as indicated on the level meter. If it is not within limits, check the amplifier gain, the LINE controls reference marks should be together.

VU METER CALIBRATION -RECORD-

10. With the same 400 Hz signal at -8 dB applied and the MONITOR switch in SOURCE, adjust VR 106/206 for 0 VU on the VU meters.

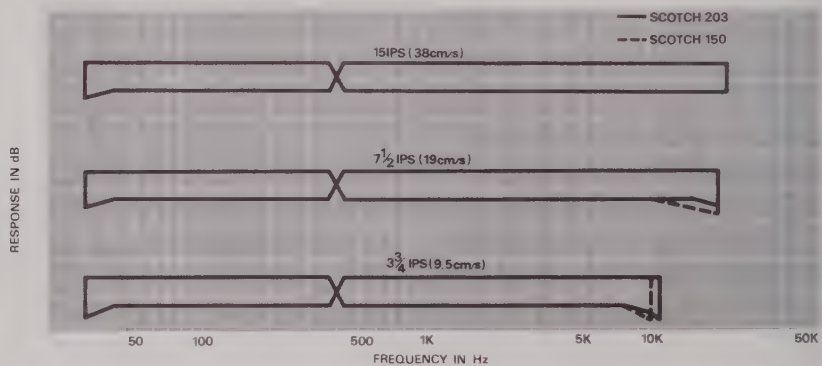


Fig. 7-7 Frequency Response Limits -Record-

RECORD PERFORMANCE

IMPORTANT

Before making any adjustments on the record amplifier, be sure that all tests in the HEAD ALIGNMENT, PLAYBACK and MONITOR PERFORMANCE sections have been accomplished and that all adjustments are correct.

Optimum recording performance (Bias levels, recording levels and frequency response) is dependent upon tape characteristics. The TEAC A-7010SL/7030SL is factory set for Scotch type 203 tape. Service data is based upon the use of Scotch 203 or equivalent tape.

BIAS TRAP ADJUSTMENT

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no signal conditions, voltage should not be present at the LINE OUT jacks.

1. Thread a blank tape or block tension arm in on position.
2. Place the mode L·R switches up.
3. Place the bias switch to HIGH and place the unit in the RECORD mode. Place the RECORD LEVEL switch in the NORMAL position.
4. Connect a VTVM to the junction of L 103, R 145.
5. Adjust L 103 for a minimum reading.
6. Connect a VTVM to the junction of L 203, R 245.
7. Adjust L 203 for a minimum reading.
8. Adjust L 101, L 201 for a minimum reading at LINE OUT jacks.

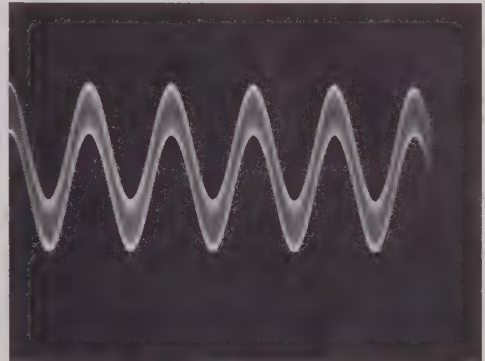


Fig. 7-8 Bias Leakage

BIAS ADJUSTMENT

NOTE

These adjustments are only made at 7-1/2 ips(7010SL), 15 ips(7030SL) tape speed. The bias oscillator frequency is 100 kHz (± 10 kHz).

-HIGH POSITION-

1. Thread record test tape Scotch 203 on the unit.
2. Place the bias switch to HIGH and place the unit in the record mode. Place the MONITOR switch in the TAPE position, LEVEL switch to NORMAL.
3. Adjust capacitor VC 102/202 for a peak on the level meter.
4. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

-NORMAL POSITION-

5. Thread record test tape Scotch 150 on the unit.
6. Place the bias switch to NORMAL and place the unit in the record mode.
7. Adjust capacitor VC 101 and VC 201 for a peak on the level meter. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

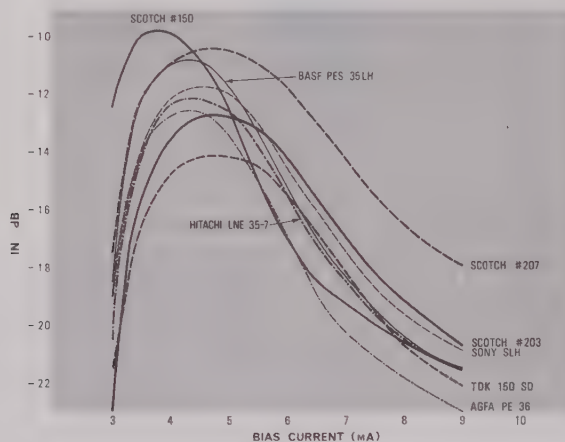


Fig. 7-9 Bias Current Characteristic

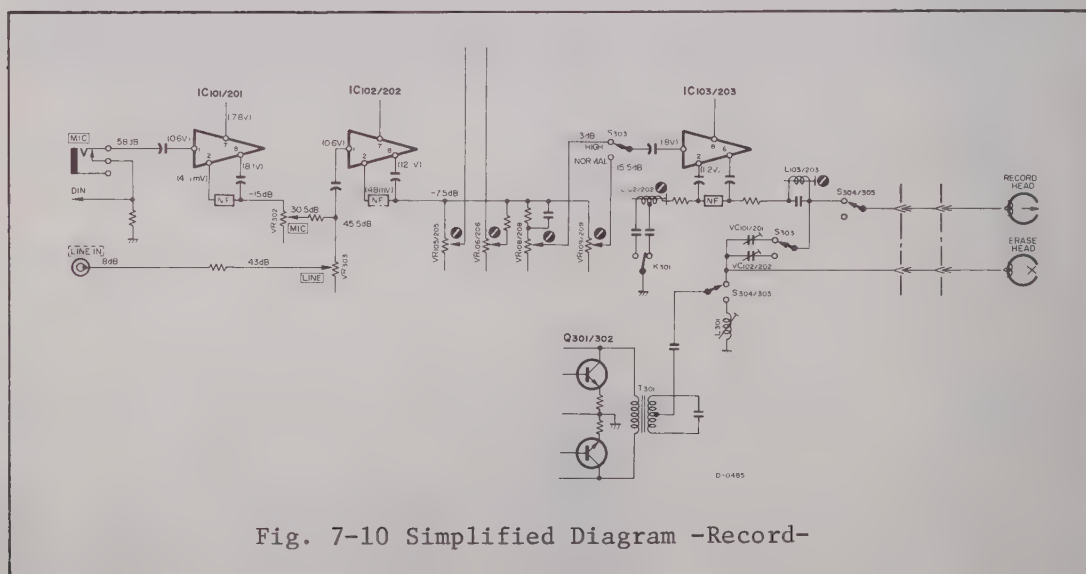


Fig. 7-10 Simplified Diagram -Record-

RECORD HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

NOTE

The effect of turning the azimuth screw will not immediately register on the level meter. A slight delay will be noticed. Therefore, the screw must be rotated slightly, and then pause to see the effect.

1. Connect a Level Meter to the LINE OUT jacks and an AF oscillator to the LINE IN jacks.
2. Place the MONITOR switch to SOURCE and adjust the AF oscillator to obtain a signal of 15 dB below the specified output level. (The level meter will indicate -23 dB.)
3. Make certain that the LINE control is at the specified input level position, then set the AF oscillator to 10 kHz.
4. Thread a record test tape on the unit and place the mode L·R switches up.
5. Place the MONITOR switch in the TAPE position.
6. Adjust the azimuth screw for maximum indication of the level meter.

Fine Adjustment

NOTE

It is absolutely essential to accomplish the coarse adjustment before using this method, to avoid phase error larger than 45°

7. Connect the test equipment as shown in Fig. 7-11.
8. Apply a 7.5 kHz signal at -23 dB to the LINE IN jacks and record this signal.
9. Carefully adjust the azimuth screw until the oscilloscope shows the signal to be in phase.
10. Secure the screw with a drop of LOCTITE.

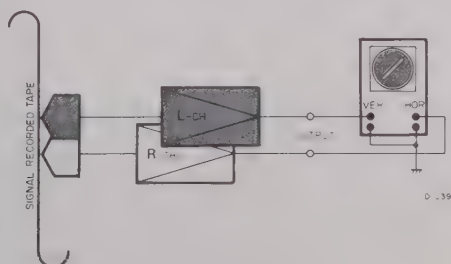


Fig. 7-11 Fine Adjustment Set-Up -Head Azimuth-

RECORD LEVEL SET

1. The OUTPUT controls must be at the specified output level position (-8 dB at LINE OUT jacks).
2. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
3. Thread record test tape Scotch 203 on the unit, then set the BIAS switch to HIGH position.
4. Place the unit in the stereo record mode with the MONITOR switch in the TAPE position.
5. Adjust VR 109/209 for a reading of ^{TOP SCALE} 0 VU on the VU meters (-8 dB at the LINE OUT jacks).

ADJUST VR-108/208 WITH LEVEL SW IN NORMAL FOR 0 VU BOTTOM SCALE

NOTE

106/206?

Adjustment of REC level VR 109/209 or VU meter VR 108/208 calibration will interact, after adjusting VR 109/209, recheck VR 108/208 to ascertain that it is still correct.

Set LEVEL switch to HIGH if using low noise/high output tape and to NORMAL if using conventional tape.

The OUTPUT/LINE controls must be at the specified position.

OVERALL FREQUENCY RESPONSE

IMPORTANT

To avoid saturation of the tape, these checks should be made at least 15 dB below the specified input level.

Any bias signal feeding into the test equipment should be filtered out by adjusting the external bias trap. A broad band VTVM may be used on the output of the unit for this adjustment.

1. Adjust the AF oscillator to obtain an output level of -23 dB (approx. 15 dB below specified output level) at LINE OUT jacks.
2. Place BIAS switch in HIGH position, thread Scotch 203 tape on machine.
3. Apply a signal swept from 50 Hz to 20 kHz and record it on the test tape at 15ips. (A-7030SL)
4. Repeat the above procedure for 7-1/2ips (A-7010/7030SL) and 3-3/4ips (A-7010SL).
Using a signal swept from 50 Hz to 15 kHz (7-1/2ips), 50 Hz to 7.5 kHz (3-3/4ips). Refer to Fig. 7-7 for response limits.

No adjustment is given for this procedure.

5. Thread the Scotch 150 tape on the unit.
6. Place the BIAS switch in the NORMAL position.
7. Repeat the overall response check at both tape speeds.
8. The record equalization should give the proper frequency response.

NOTE

Since response of TEAC M-826A falls off sharply above 20kHz the extra bias trap is not required if M-826A is used.

NOTE

If adjustment is required, adjust L 102/202. These coils are in use for both tape speeds and should be adjusted at 7-1/2 ips(A-7010SL), 15 ips(A-7030SL).

If the coil adjustments do not help, then change the value of C 140/240 for 7-1/2 ips(A-7010SL), 15 ips(A-7030SL) and C 141/241 for 3-3/4 ips(A-7010SL), 3-3/4 ips (A-7030SL) Adjust this circuit for most even LEVEL METER readings, trying to bring them as close as possible to the 400 Hz reference reading.

OVERALL SIGNAL TO NOISE RATIO

IMPORTANT

Clean and demagnetize the heads before proceeding. It is extremely important that all tests described in the proceeding paragraphs have been completed and that all controls adjusted are left unaltered.

1. Thread a record test tape (Scotch 203) on the unit.
2. Remove the AF oscillator from the LINE IN jacks.
3. Place the unit in the RECORD mode with no signal applied.

NOTE

Noise readings, when taken while recording, may be affected by the bias signal which could be leaking through. It is therefore good practice to rewind the no signal recorded section and take the noise reading during playback.

4. Note the point on the index counter where recording begins.
5. Rewind the tape and play it back.
6. The noise level as indicated on the level meter should be -56 dB at 15, 7-1/2ips and -54 dB(3-3/4ips) or less. (See Fig. 7-5 Signal/Noise Computation.)

NOTE

Bias, erase and playback amplifier noise are all included in this measurement.
All frequencies between 40 Hz and 15 kHz are measured un-weighted.

LEVEL VARIATION

A LEVEL METER connected to the LINE OUT jack should indicate the readings listed below at the specified frequency and tape speed using Scotch 203 as the test tape.

A-7010SL

7-1/2 ips: 0.5 dB at 400 Hz
1.5 dB at 15 kHz
3-3/4 ips: 2 dB at 10 kHz

A-7030SL

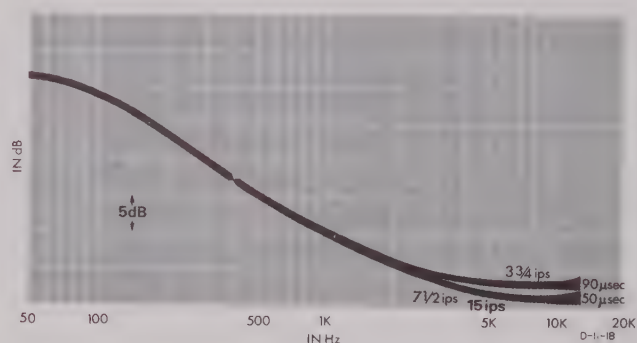
15 ips: 2.0 dB at 20 kHz
7-1/2 ips: 1.5 dB at 15 kHz

NOTE

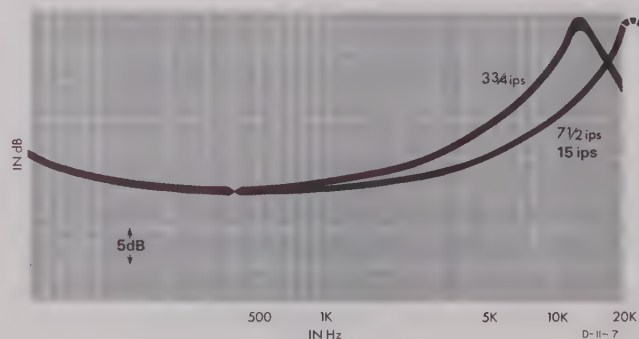
To measure erase efficiency, a 1 kHz band pass filter (TEAC M-204 CL filter) must be used.

Due to the high level of this signal, it is recommended that only a short recording be made (approximately 30 seconds) to prevent damage to the VU meters.

1. Apply a 1 kHz signal at 0 dB to the LINE IN jacks.
2. Place the unit in record mode and record this signal.
3. Rewind the recording to the beginning and remove the AF oscillator from the LINE IN jacks.
4. Place the unit in record mode and record over this portion of tape again.
5. Rewind the tape to the starting point and connect a level meter to the LINE OUT jack through the 1 kHz band pass filter.
6. Play the erased portion of the tape.
7. The level meter should indicate -65 dB or more.



PLAYBACK EQUALIZATION CURVES



RECORD EQUALIZATION CURVES

Fig. 7-12 Typical Response Curve

8 PREVENTIVE MAINTENANCE

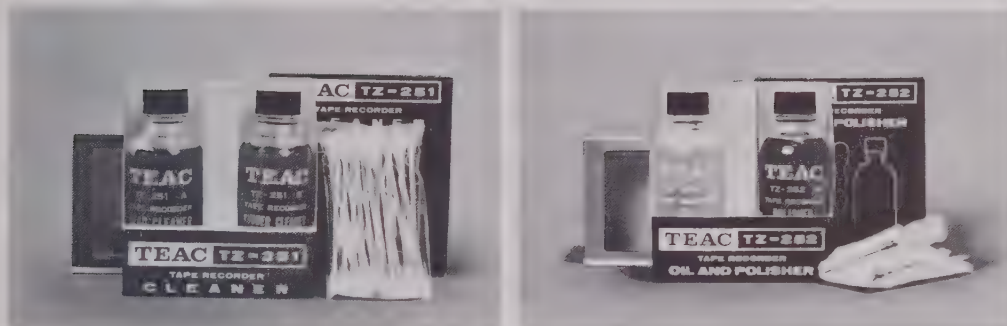


Fig. 8-1 Maintenance Equipment

CLEANING

If excess oxide accumulates on the surface of tape path components, normal operation and characteristics cannot be expected. Periodic cleaning should be done with proper cleaning materials. Refer to Operating Instructions.

DEMAGNETIZATION

Metal parts in contact with the tape will become magnetized after long periods of use(except erase head). Magnetization of record/playback heads causes noise in recording and reproduction and heads should be demagnetized at every 50 hours of use, and before any important recording is done. Refer to Operating Instructions.

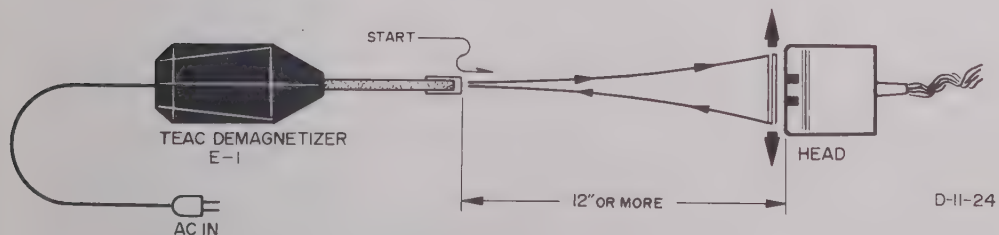


Fig. 8-2 Demagnetization

LUBRICATION

Under normal conditions the unit will not require lubrication. Most of the bearings and bushings are of the oilless type. Since there are many rubber parts in the transport mechanism, excessive or improper lubrication could cause problems. If lubrication is required, the following points should be lubricated:

Capstan bushing, pinch roller shaft 1 drop
Motor 1 - 2 drops in the plastic tubes

Parts to be lubricated should be cleaned and old oil and dirt removed before relubricating. Observe instructions as to type of oil, points to be lubricating.

Motors should be lubricated immediately after use while still warm. After oiling motors keep the unit in the horizontal position for 2 - 3 hours to allow thorough absorption of oil.

VENTILATION

During use the face plate of the A-7010SL/7030SL may become quite warm to the touch, this is entirely normal. As long as the air vents in the rear plate are unobstructed, the unit will not overheat. However, if the unit is placed snugly against a wall, or free air passage is prevented, overheating and possible damage may occur.

9 TROUBLE SHOOTING

NOTE

About 50% of the units that are returned for repair do not function properly due to poor connections, dirty heads, poor tape, or improper operation.

Therefore, read your operating instructions and take a minute to carefully check the machine yourself before shipping it back for repair.

The following guide lists specific difficulties that could occur in the A-7010SL/7030SL.

Several possible causes are listed for each malfunction.

Visually inspect the unit for any damage such as broken or burned components or wiring, loose connections, etc.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Capstan fails to turn	Belt off or slipping, line fuse (F-2), auto-shutoff switch(S-13) 7030SL(S-11), phase advance capacitor (C-3) 7030SL(C-5), reverse play relay(K-6), speed select switch(S-3).	Refer to schematic diagram and repair or replace the defective components.
Pinch roller fails to contact capstan in play mode	AC voltage selector switch, improperly positioned, remote control jumper plug not installed or loose, stop switch(S-17) 7030SL(S-15), reverse play relay(K-6), switch(S-16), delay relay(K-2) 7030SL(K-6), fast relay(K-3), capstan solenoid.	The normal DC resistance of the capstan solenoid is 1.3 kohms. Refer to schematic diagram and repair or replace the defective components.
Right reel does not rotate in the play mode	Delay relay(K-2) 7030SL(K-6), reverse play relay(K-6), resistor(R-4), fast relay(K-3), capacitor(C-4).	Refer to schematic diagram and repair or replace the defective components.
Left reel does not rotate in play mode	Delay relay(K-2) 7030SL(K-6), reverse play relay(K-6), resistor(R-5), fast relay(K-3), capacitor(C-5) 7030SL(C-7).	Refer to schematic diagram and repair or replace the defective components.
Left reel operates with low torque	Resistor(R-5), tension switch(S-2).	Repair or replace the defective components.
Both reel motors fail to operate	Operating relay(K-1).	Clean contacts on(K-1) or replace relay.
Recorder does not operate in forward play	Remote control jumper plug missing or loose, reverse play relay(K-6), switch (S-6) 7030SL(S-14), signal record switch(S-5), operate relay(K-1), brake solenoid (L-1).	Normal DC resistance of the brake solenoid is 1.3 kohms. Refer to schematic diagram and repair or replace the defective components.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Recorder does not operate in reverse play 7010SL only	Remote control jumper plug missing or loose, stop switch(S-17) 7030SL(S-15), switch(S-14) 7030SL(S-12), resistor(R-8), reverse relay(K-5).	Refer to schematic diagram and repair or replace the defective components.
Pinch roller 4 second delay faulty	Reverse relay(K-5), resistor(R-10) 7030SL(R-9), capacitor(C-8) 7030SL(C-9), delay relay(K-2).	Refer to schematic diagram and repair or replace the defective components.
Fast forward or rewind mode inoperative	Reverse relay(K-5), fast relay(K-3).	Refer to schematic diagram and repair or replace the defective components.
No record and/or no erase	Record head dirty, erase head dirty, operate relay (K-1), Auto Reverse switch (S-4) in "ON" position, record switch(S-8), record relay(K-7), record amplifier, bias oscillator, record head, erase head.	Refer to schematic diagram and repair or replace the defective components. For record amplifier troubleshooting refer to voltage chart.
No playback	Playback head dirty, amplifier to deck connections, monitor switch(S-301), playback amplifier	Refer to playback amplifier voltage chart.
Auto-reverse does not function with sensing foil	Foil length too short, sensing post dirty.	Foil should be 1/2" long. Clean sensing post.
Auto-reverse does not function with PSS signal 7010SL only	Defective(old) tape, signal too short in duration, record head dirty, switch(S-4), switch(S-5), resistor(R-13) 7010SL(R-11), capacitor(C-9), resistor(R-12), autoreverse amplifier faulty	Repair or replace defective components. The autoreverse signal duration should be 1 to 2 seconds.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Repeat operation faulty	Foil length too short, sensing post dirty, repeat switch(S-7) not on or faulty, repeat unit faulty.	There is a built-in 40 second recycling period for the repeat unit. It will not operate if a repeat cycle of less than 40 seconds is required.
Playback noise or hum	Faulty connections, head selector relay(K-8), faulty playback head. Faulty playback amplifier.	Repair or replace faulty components.
Noise or hum during record	Magnetized head, faulty connections, Mic level set to maximum, switch(S-5), switch(S-4), record relay (K-7), faulty head. Faulty record amplifier.	Demagnetize and clean head, repair or replace faulty components.
Wow and flutter	Defective tape, dirty or defective pinch roller, oily or defective belt, reel motor tension.	Clean or replace defective components. Adjust motor tension.
Incorrect tape speed	50/60 Hz cycle change knob in wrong position. Incorrect pinch roller pressure.	Reset cycle change knob. Adjust pinch roller pressure.
Brakes do not release	Defective brake solenoid.	The DC resistance of the brake solenoid should be 1.6 kohms. Replace solenoid.

PHASE SENSING SYSTEM — (A-7010SL only) .

The phase sensing reverse utilizes a separate amplifier located on the bottom of the A-7010SL transport section.

When the SIGNAL RECORD and (▶) buttons are depressed, the AC line frequency (50 or 60 Hz) signal is recorded on the tape at a level of approximately +10 - 11 dB. This signal, however, is recorded out of phase between the left and right channels since one of the record head poles is electrically reversed during this mode.

During playback with the AUTO REVERSE ON, the record heads act as the sensing device and are connected out of phase as they were during the recording of the reversing signal.

Because the heads are now out of phase in respect to the normal audio signals they generate very little or no output since the signals tend to cancel each other out. However, when the previously recorded, out of phase, reversing signal reaches the recording head it is now in phase in respect to the record head and generates a signal which is amplified, rectified and utilized to energize the reverse relay.

It is feasible that a strong signal with no counterpart on the other channel to cancel it out could cause the recorder to reverse. However, proper adjustment of the reversing amplifier sensitivity control will eliminate this possibility.

It must be understood that the reversing signal is recorded at such a high level that normal signals do not approach this level.

Phase Sensing System Adjustments:

1. Thread a blank tape (THIN tape) on the recorder and set MONITOR switch to TAPE.
2. Place the MODE L·R switches in the UP position.
3. Place the AUTO REVERSE switch in the ON position.
4. Depress the SIGNAL RECORD and the (▶) button for approximately 2 seconds.
5. Rewind the tape to the start of the recorded signal and press the (▶) button.
6. Adjust VR-1 until the recorder stops and reverses. (See below.)
7. Rewind the tape once more and check to see if the recorder stops and reverses, then increase the sensitivity of VR-1 slightly.

- NOTE

If the use of THIN tape is not anticipated, the above adjustments can be made with REGULAR tape.

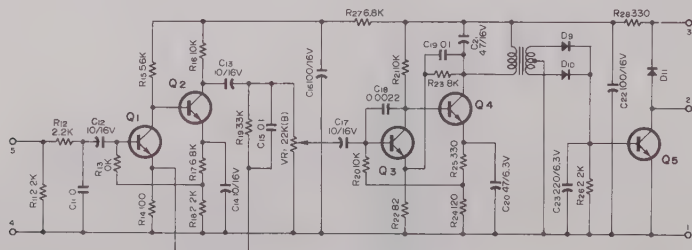


Fig. 9-1 P·S Reverse Amplifier Schematic Diagram

10 WARRANTY

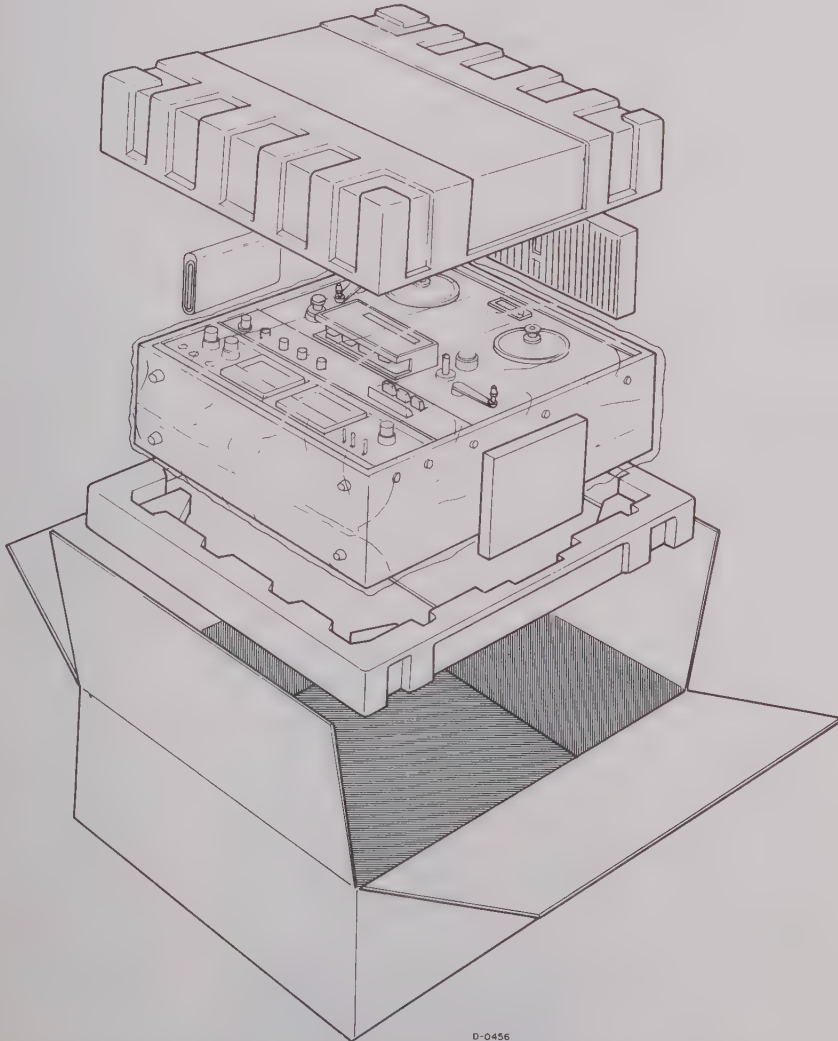
Your TEAC equipment has been manufactured under strictest quality control. Its normal operation is under warranty. However, warranty terms may vary with the country(area) in which it was purchased and for different models of equipment.

The warranty terms are fully described in the enclosed warranty card. Please read the card for complete details.

11 PACKING FOR SHIPMENT

SHIPPING INSTRUCTIONS

If the unit is to be sent back to the TEAC factory (service department) for repair, carefully pack as shown below.



D-0456

CHANGES ADDED

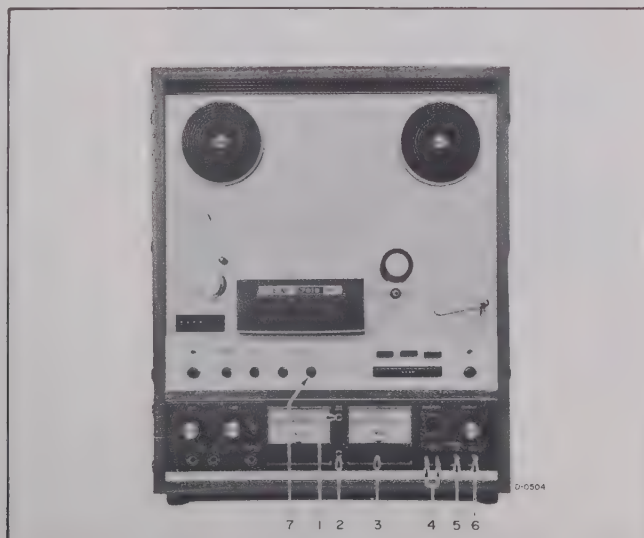
The following features are added to the new A-7010SL/7030SL.
The other controls are the same as on A-7010/7030.

-REC BIAS-

1. Bias level indicator lamp: Glows red when high position is selected with record BIAS switch.

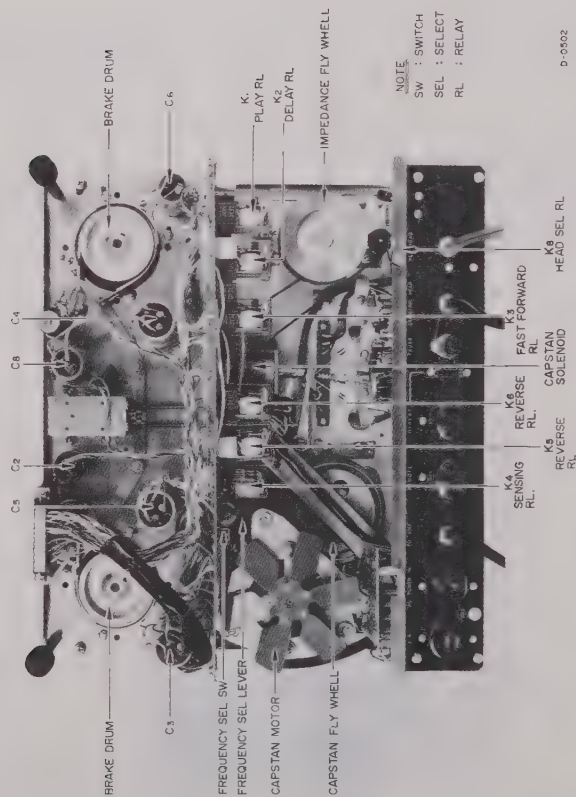
-REC LEVEL-

2. Meter level indicator lamp: Glows violet when high position is selected with meter LEVEL switch.
3. VU meter cover is black.
4. Record channel selector switches (MODE L·R). Selects channel or channels to be recorded.
5. Record bias switch(BIAS): Selects proper bias signal level for type tape being recorded.
HIGH position; is for use with conventional tapes, such as
5. Record bias switch(BIAS): Selects proper bias signal level for type tape being recorded.
HIGH position; is for use with HIGH output/low noise tape, such as Scotch 203 or BASF LP-35LH.
NORMAL position; is for use with conventional tapes, such as Scotch 150.
6. Meter level switch(LEVEL):
HIGH position; expands the VU meter scale for recording or playback of high performance tapes, such as Scotch 203 or BASF LP-35LH.
NORMAL position; for use when recording or playing back conventional tapes, such as Scotch 150.
7. Cue button(7030SL only); Cueing button, used during fast wind modes to locate program material. Retracts the automatic tape lifters when depressed.



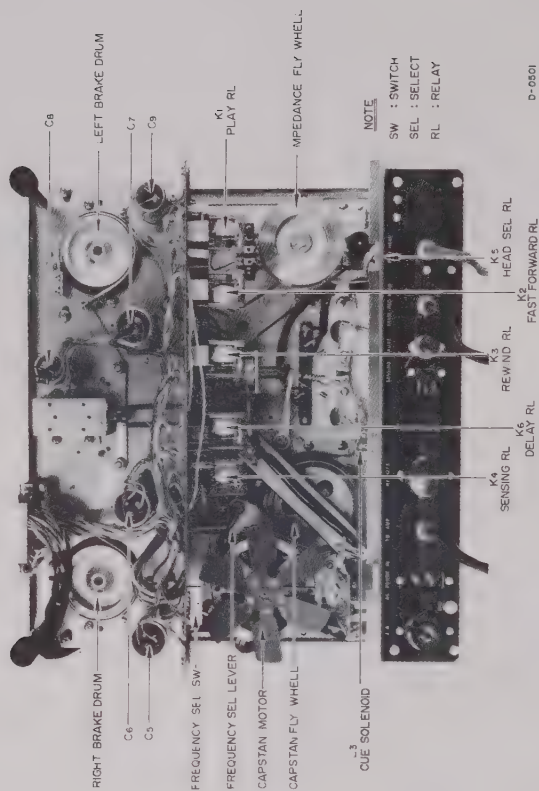
TAPE TRANSPORT PARTS LOCATION

A-7010SL



-REAR-

A-7030SL



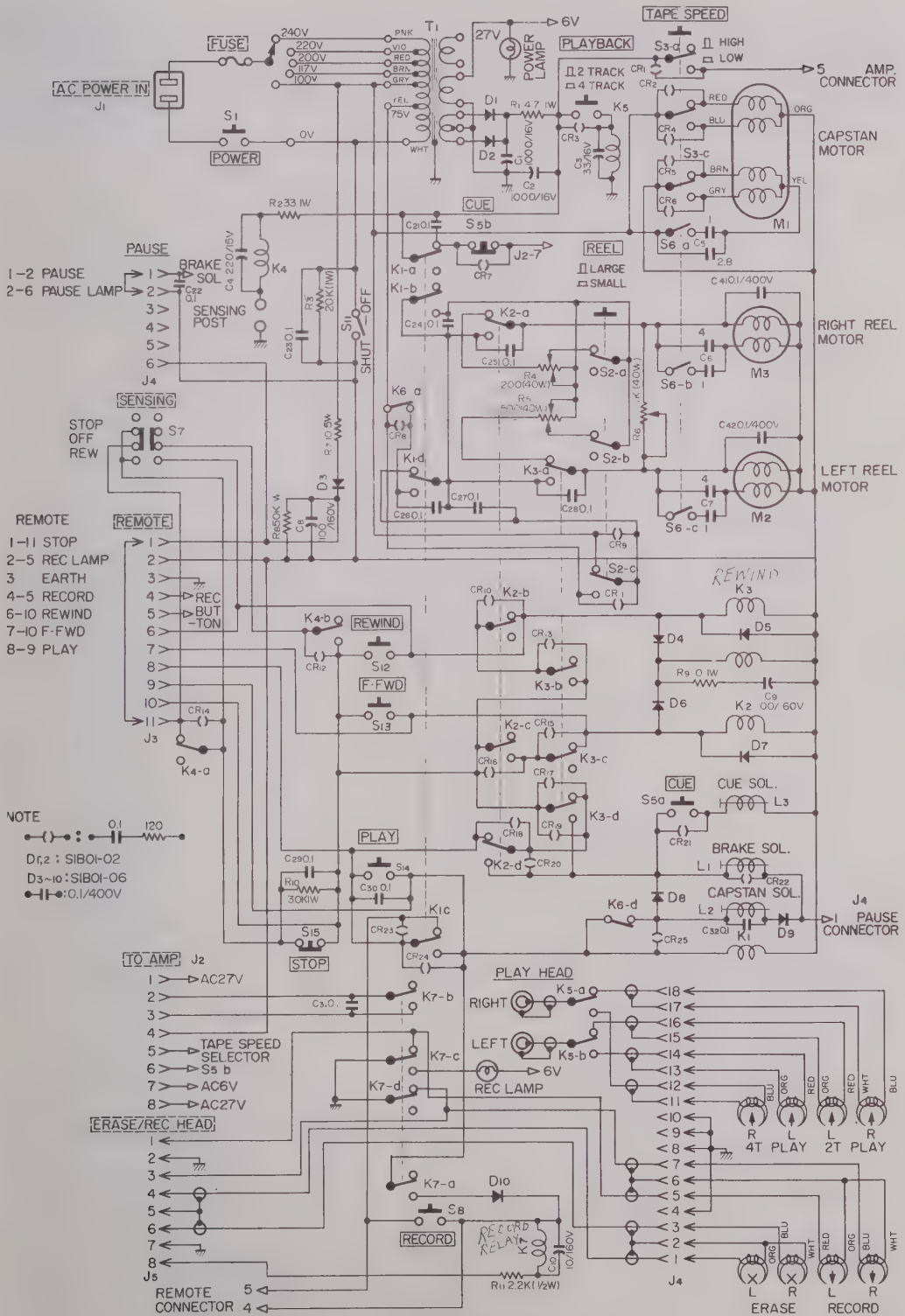
-REAR-

12 SCHEMATIC DIAGRAM

WATER SUPPLY MAIN LINE

TAPE TRANSPORT

A-7030SL

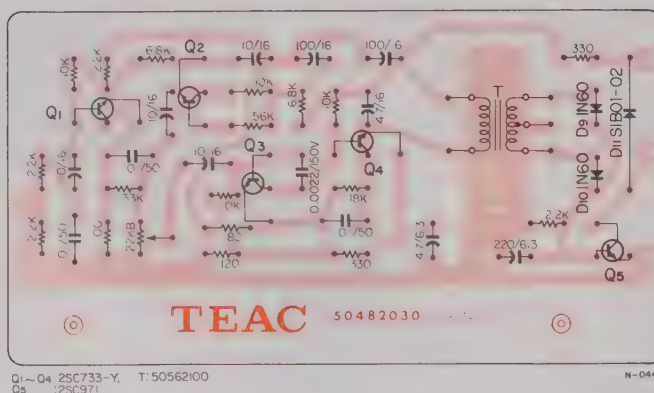


13 PRINTED CIRCUIT BOARD AND PARTS LIST

PCB 13-1 (Rev. 1) 13-1

AUTO REVERSE AMPLIFIER (P.S. AMP)

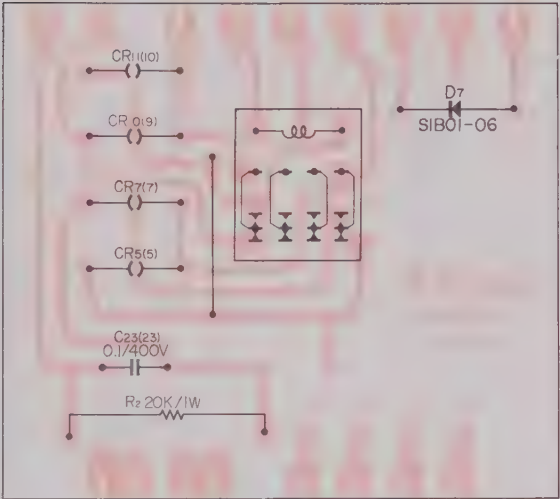
A-7010SL



REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND	3RD
2-49-1	50489280	PC Board Assy, Auto Reverse Amp			
	50482030	PC Board, Auto Reverse Amp			
	50442560	Diode, S1B01-02			
	50422130	Diode, (or IN-60), x 2			
	50562100	Transformer, Output			
	SILICON TRANSISTORS				
Q1	50423300	2SC693F or			
	50423510	2SC733(Y)			
Q2-Q4	50423830	2SC536F or			
	50423510	2SC733(Y)			
Q5	50423850	2SC971			
	CARBON RESISTORS				
	50515380	2.2k ohm 1/4W, x 4			
	50515490	10k ohm 1/4W, x 4			
	50515640	100 ohm 1/4W			
	50515610	56k ohm 1/4W			
	50515470	.6.8k ohm 1/4W, x 2			
	50515570	33k ohm 1/4W			
	50515630	82 ohm 1/4W			
	50515520	18k ohm 1/4W			
	50515280	330 ohm 1/4W, x 2			
	50515230	120 ohm 1/4W			
	TRIMMER RESISTOR				
	50533560	22k ohm (B)			
	CAPACITORS				
	50554330	Elec. 220uF 6.3V			
	50554200	Elec. 100uF 16V			
	50554030	Elec. 47uF 6.3V			
	50554050	Elec. 10uF 16V			
	50548040	Mylar 0.1uF 50V			
	50548220	Mylar 0.0022uF 150V			
	50546170	Tantalum 4.7uF 16V			

NOISE SUPPRESSION ASSY
SPARK KILLER ASSY

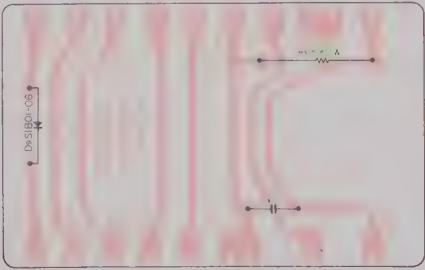
A-7010SL



NOTE  :  120  0.1 N 0439

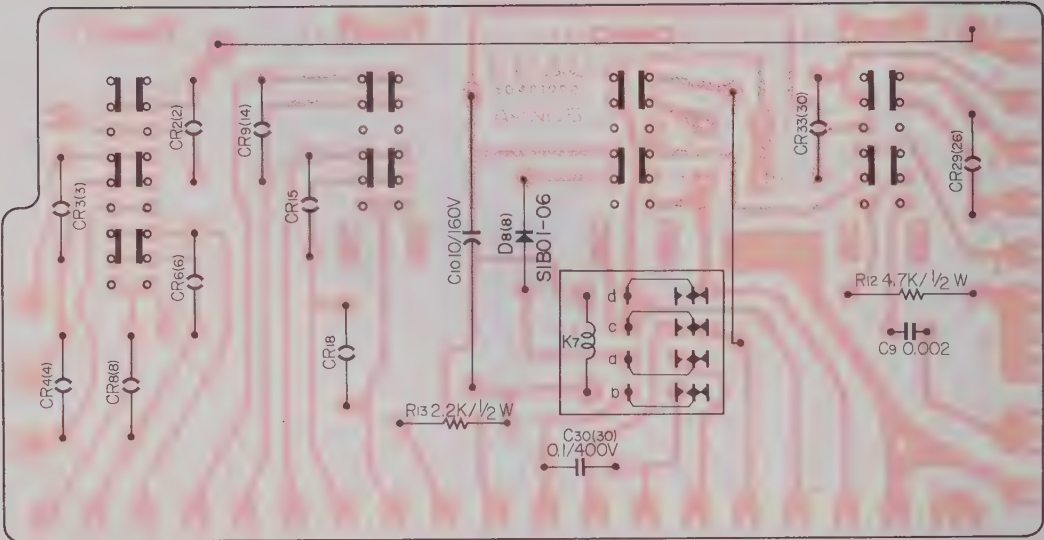
REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-38-1	50489220	PC Board Assy, Noise Suppression		
	50482860	PC Board, Noise Suppression		
	50548390	Cap., Metalized Mylar 0.1uF 400V		
	50526220	Resistor, Carbon 20k ohm 1W		
	50529050	Spark Killer 0.1uF + 120 ohm, x 4		
	50422570	Diode, S1B01-06		
	50610770	Relay, Miniature DC 100V		

A-7030SL



REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-38-1	50489290	PC Board Assy, Noise Suppression		
	50482970	PC Board, Noise Suppression		
	50548390	Cap., Metalized Mylar 0.1uF 400V, x 4		
	50526220	Resistor, Carbon 20k ohm 1W		
	50529050	Spark Killer 0.1uF + 120 ohm		
	50422570	Diode, S1B01-06		

RECORD RELAY ASSY
A-7010SL

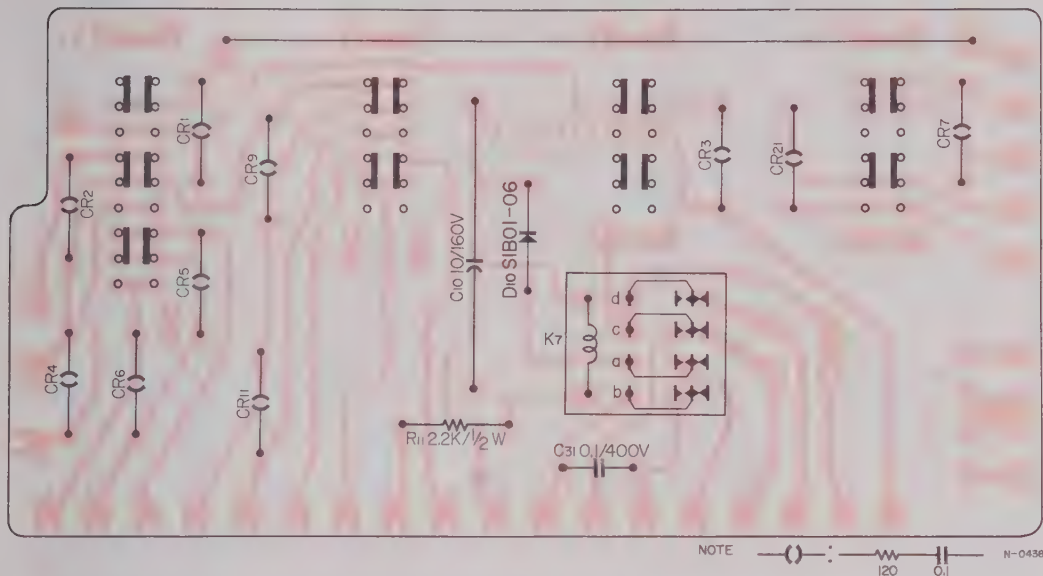


NOTE :  :  120  0.1 N-0443

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-4-1	50489270	PC Board Assy, Record Relay		
	50481990	PC Board, Record Relay		
	50443670	Push SW Assy		
	50610430	Relay, KGS K6-4P 100V		
	50555450	Cap., Elec. 10uF 160V		
	50548390	Cap., Metalized Mylar 0.1uF 400V		
	50548170	Cap., Mylar 0.0022uF 150V		
	50516380	Resistor, Carbon 2.2k 1/2W		
	50516440	Resistor, Carbon 4.7k 1/2W		
	50442570	Diode, S1B01-06		
	50529050	Spark Killer 0.1uF + 120 ohm, x 8		

RECORD RELAY ASSY

A-7030SL

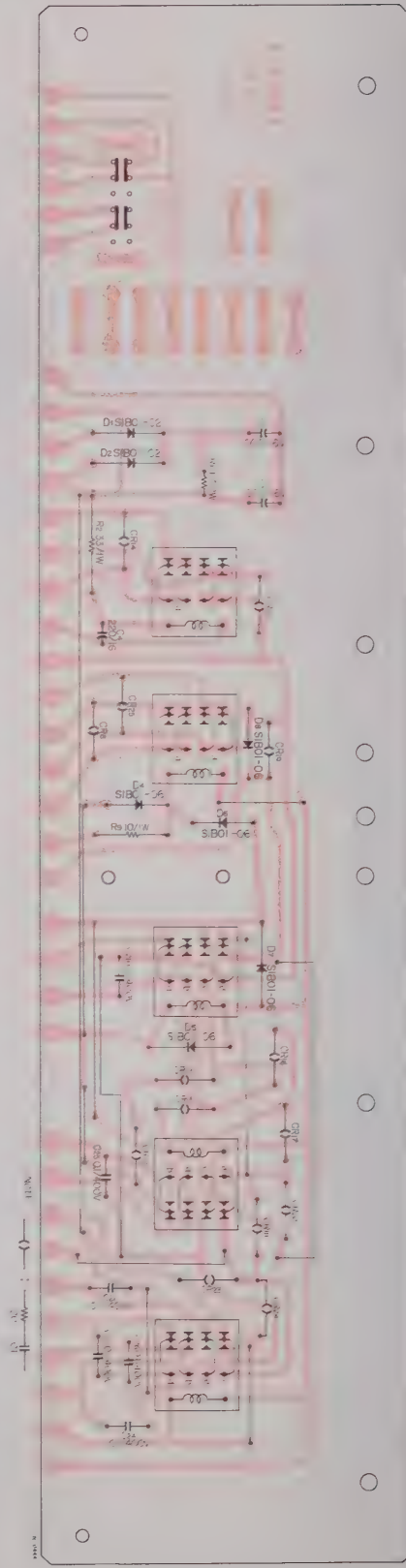
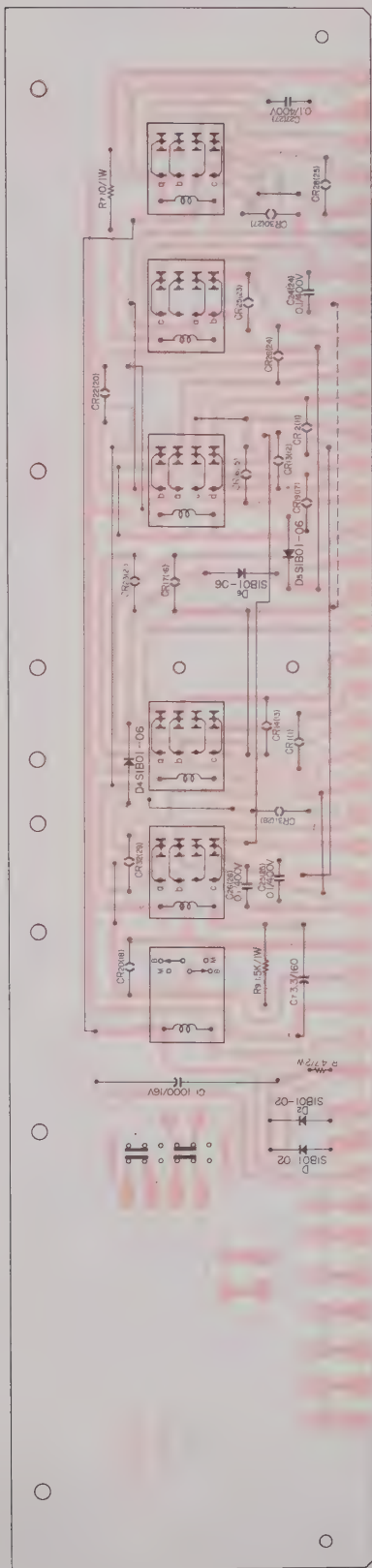


REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-4-1	50489340	PC Board Assy, Record Relay		
	50482010	PC Board, Record Relay		
	50443670	Push SW Assy		
	50610430	Relay, KGS K6-4P 100V		
	50555450	Cap., Elec. 10uF 160V		
	50548390	Cap., Metalized Mylar 0.1uF 400V		
	50516380	Resistor, Carbon 2.2k 1/2W		
	50442570	Diode, S1B01-06		
	50529050	Spark Killer 0.1uF + 120 ohm, x 8		

CONTROL RELAY ASSY

A-7010SL

A-7030SL



CONTROL RELAY ASSY

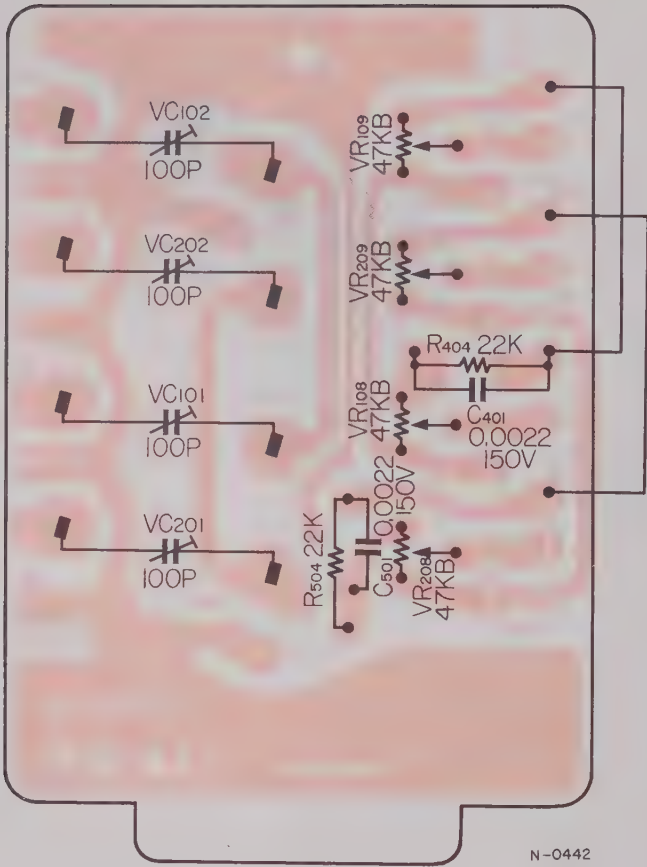
A-7010SL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
5-36-1	50489330	PC Board Assy, Control Relay		
	50482040	PC Board, Control Relay		
	50610770	Relay, DC 100V RL-MY4PY1-0, x 5		
	50610780	Relay, DC 12V MH2ZPM1-0		
	50548390	Cap., Metalized Mylar 0.1uF/400V, x 5		
	50555360	Cap., Elec. 3.3uF/160V		
	50529050	Spark Killer, 0.1uF + 120 ohm, x 16		
	50525100	Resistor, Wire Wound 10 ohm 1W		
	50525920	Resistor, Wire Wound 4.7 ohm 1W		
	50527010	Resistor, 1.5k ohm 1W		
	50422570	Diode, 1B01-06, x 3		
D2·D3	50422560	Diode, 1B01-02, x 2		

A-7030SL

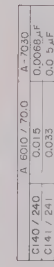
REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
5-36-1		PC Board Assy, Control Relay		
	50482050	PC Board, Control Relay		
	50610770	Relay, DC 100V RL-MY4PY1-0, x 4		
	50610830	Relay, MY4PY1-0		
	50548390	Cap., Metalized Mylar 0.1uF/400V, x 6		
	50554890	Cap., Elec. 1000/16V, x 2		
	50554390	Cap., Elec. 220/16V		
	50529050	Spark Killer, 0.1uF + 120 ohm, x 15		
	50525100	Resistor, Wire Wound 10 ohm 1W		
	50525920	Resistor, Wire Wound 4.7 ohm 1W		
	50525940	Resistor, Wire Wound 33 ohm 1W		
	50422570	Diode, 1B01-06, x 6		
D2·D3	50422560	Diode, 1B01-02, x 2		

BIAS ADJUST ASSY



CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
6-9	50489320	PC Board Assy, Bias Adjust		
	50481980	PC Board, Bias Adjust		
VR108/208	50533520	Trimmer Resistor 47k B		
VR109/209	50533520	Trimmer Resistor 47k B		
VC101/201	50547040	Trimmer Capacitor 100pF		
VC102/202	50547040	Trimmer Capacitor 100pF		
C401/501	50548820	Cap., Mylar 0.001uF/150V		
R404/504	50517100	Resistor, Carbon 22k 1/8W		

CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
6-11	50489300	PC Board Assy, Bias Osc.		
	50481840	PC Board, Bias Osc.		
T301	50563170	Transformer, Oscillator		
		SILICON TRANSISTOR		
Q301•302	50423850	2SC971 (with Heat Sink)		
		RESISTORS		
R310	50525950	Wire Wound 22 ohm 1W		
R311•312	50514920	Carbon 2.2k ohm 1/2W		
R313	50514920	Carbon 2.2k ohm 1/2W		
R314	50515220	Carbon 100 ohm 1/4W		
R315•316	50514990	Carbon 33 ohm 1/2W		
		CAPACITORS		
C305				
C306•307	50548790	Mylar 0.0022uF/150V		
C308	50548530	Mylar 0.0033uF/150V		
C309	50544040	Mica 4200pF/250V		
C310	50548740	Mylar 0.022uF/150V		
C317	50548040	Mylar 0.1uF/50V		



CIRCUIT REF NO.	DESCRIPTION	CIRCUIT REF NO.	DESCRIPTION
0101 / 201	25C0008L	0301 / 302	28C97.
0102 / 202	25A727Y1.4	0303	280235
0103 / 203	25C536F	0304	25C7331
0104 / 204	25C693F&		
0105 / 205	25A494-1	IC01 / 201	TE4C42709
0106 / 206	25C7337 or 25C536F	IC02 / 202	TE4C42709
0107 / 207	25C7337 or 25C536F	IC03 / 203	TE4C42710

PREAMPLIFIER

CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
6-13	50489310	PC Board Assy, Preamplifier		
	50482830	PC Board, Preamplifier		
	50234870	Heat Sink		
K301	50610850	Relay, MH-4P 2ZM1-0		
K302	50610870	Relay, SBA-232J 12V		
T101/201	50562141	Transformer, Output 3k:8 ohm		
	50270160	Cushion Rubber Ring		
SILICON TRANSISTORS				
Q101/201	50423870	2SC1000(BL)		
Q102/202	50424170	2SA666(I) or		
	50424140	2SA572(YL4)		
Q103/203	50423310	2SC536(F)		
Q104/204	50424180	2SC693(Fa)		
Q105/205	50423870	2SA666(S) or 2SA494(Y)		
Q106/206	50423510	2SC733(Y) or 2SC828(R, S)		
Q107/207	50423310	2SC536(F) or		
		2SC828(R, S) or		
	50423510	2SC733(Y)		
Q303	50424190	2SD235 or		
		2SC1226(A-Q)		
Q304	50423510	2SC733(Y)		
INTEGRATED CIRCUITS				
IC101/201	50427090	LD-3120		
IC102/202	50427090	LD-3120		
IC103/203	50427100	LD-3141		
DIODES				
D301-304	50422560	SIB01-02		
D305	50422560	SIB01-02		
D306	50422580	Zener		
COILS				
L101/201	50566300	Record Compensation 4.2/2.4mH		
L102/202	50566370	Trap 3mH		
L103/203	50566300	Trap 3mH		
L301	50566500	Dummy Load		

PREAMPLIFIER (CONTINUED)

CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
CARBON RESISTORS				
ALL RESISTORS IN OHMS, 10% TOLERANCE				
1/4 WATTS AND FIXED CARBON FILM TYPE				
UNLESS OTHERWISE NOTED				
R101/201	50515700	270k		
R102/202	50515340	1k		
R103/203	50515610	56k		
R104/204	50515610	56k		
R105/205	50515590	47k		
R106/206	50515570	33k		
R107/207	50515580	39k		
R108/208	50515500	12k		
R109/209	50515310	560		
R110/210	50515350	1.2k		
R111/211	50515700	270k		
R112/212	50515350	1.2k		
R113/213	50515250	180		
R114/214	50515490	10k		
R115/215	50515460	5.6k		
R116/216	50515510	15k		
R117/217	50515580	39k		
R118/218	50515580	39k		
R119/219	50515520	18k		
R120/220	50515340	1k		
R121/221	50519810	47k		
R122/222	50515590	47k		
R123/223	50515610	56k		
R124/224	50515510	15k		
R125/225	50515580	39k		
R126/226	50515310	560		
R127/227	50515500	12k		
R128/228	50515380	2.2k		
R129/229	50515160	39		
R130/230	50515260	220		
R131/231	50515520	18k		
R132/232	50515340	1k		
R133/233	50515490	10k		
R134/234	50515630	82k		
R135/235	50515310	560		
R136/236	50515410	3.3k		
R137/237	50515640	100k		
R138/238	50515620	68k		
R139/239	50515430	3.9k		
R140/240	50515500	12k		
R141/241	50515540	22k		
R142/242	50515200	68		
R143/243	50515500	12k		
R144/244	50515470	6.8k		
R145/245	50515410	3.3k		

PREAMPLIFIER (CONTINUED)

CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
R146/246	50515680	220k		
R147/247	50515700	270k		
R148/248	50515340	1k		
R149/249	50515170	47		
R150/250	50515410	3.3k		
R151/251	50515340	1k		
R301	50515260	220		
R302	50515350	1.2k		
R303	50525930	Wire Wound 3.3/1W		
R304	50515340	1k		
R305	50515340	1k		
R306	50515430	3.9k		
R307	50515520	8.2k		
R308	50515520	18k		
R309	50515130	22		
TRIMMER RESISTORS				
VR101/201	50533460	4.7k B		
VR102/202	50533460	4.7k B		
VR103/203	50533520	47k B		
VR104/204	50533480	10k B		
VR105/205	50533490	100k B		
VR106/206	50533480	10k B		
VR107/207	50533560	22k B		
CAPACITORS				
ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.				
C101/201	50546190	Tantalum 10/10V		
C102/202	50554170	Elec. 100/25V		
C103/203	50548780	Mylar 0.001/50V		
C104/204	50554030	Elec. 47/6.3V		
C105/205	50554270	Elec. 10/16V		
C106/206	50544080	Polyst. 22p/50V		
C107/207	50554230	Elec. 100/6.3V		
C108/208	50554040	Elec. 10/25V		
C109/209	50548420	Mylar 0.015/50V		
C110/210	50544090	Polyst. 560p/50V		
C111/211	50554180	Elec. 220/25V		
C112/212	50546120	Tantalum 1/25V		
C113/213	50546120	Tantalum 1/25V		
C114/214	50546220	Tantalum 3.3/25V		
C115/215	50554810	Elec. 1/25V		
C116/216	50554170	Elec. 100/25V		
C117/217	50554030	Elec. 47/6.3V		
C118/218	50548780	Mylar 0.001/50V		

PREAMPLIFIER

CONTINUED

CIRCUIT REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
C119/219	50554055	Elec. 10/16V		
C120/220	50544100	Polyst. 82p/50V		
C121/221	50554030	Elec. 47/6.3V		
C122/222	50554510	Elec. 10/25V		
C123/223	50544120	Polyst. 820p/50V		
C124/224	50554050	Elec. 10/16V		
C125/225	50554030	Elec. 47/6.3V		
C126/226	50554050	Elec. 10/16V		
C127/227	50554050	Elec. 10/16V		
C128/228	50544110	Polyst. 47p/50V		
C129/229	50554050	Elec. 10/16V		
C130/230	50554050	Elec. 10/16V		
C131/231	50554030	Elec. 47/6.3V		
C132/232	50554490	Elec. 47/25V		
C133/233	50554180	Elec. 220/25V		
C134/234	50554050	Elec. 10/16V		
C135/235	50544110	Polyst. 47p/50V		
C136/236	50554050	Elec. 10/16V		
C137/237	50554030	Elec. 47/6.3V		
C138/238	50554490	Elec. 47/25V		
C139/239	50554050	Elec. 10/16V		
C140/240*	50548570	Mylar 0.0068/50V (A-7030SL only)		
C141/241*	50548420	Mylar 0.015/50V (A-7030SL only)		
C142/242	50548680	Mylar 0.33/50V		
C142'/242'	50548660	Mylar 0.22/50V		
C144/244	50554055	Elec. 10/16V		
C145/245	50546200	Tantalum 10/25V		
C146/246	50554770	Elec. 47/16V		
C147/247	50554230	Elec. 100/6.3V		
C148/248	50544120	Polyst. 820p/50V		
C149/249	50554810	Elec. 1/25V		
C150/250	50554030	Elec. 47/6.3V		
C151/251	50554810	Elec. 1/25V		
C301	50557080	Elec. 820/50V		
C302	50554800	Elec. 220/35V		
C303	50554180	Elec. 220/25V		
C304	50557050	Elec. 1000/25V		

*A-7010SL Component Value Changes

C140/240 50548290 Mylar 0.022/50V
C141/241 50548430 Mylar 0.039/50V

14 EXPLODED VIEW AND PARTS LIST

FOR A-7010/7030SL

REPLACEMENT INFORMATION

Replacement part are available through your nearest TEAC dealer or directly from the TEAC office.

Changes are constantly being made to make TEAC products better and more reliable.

Therefore, when ordering parts, always include the following information:

MODEL	SERIAL NO.	REF NO.	PART NO.	DESCRIPTION
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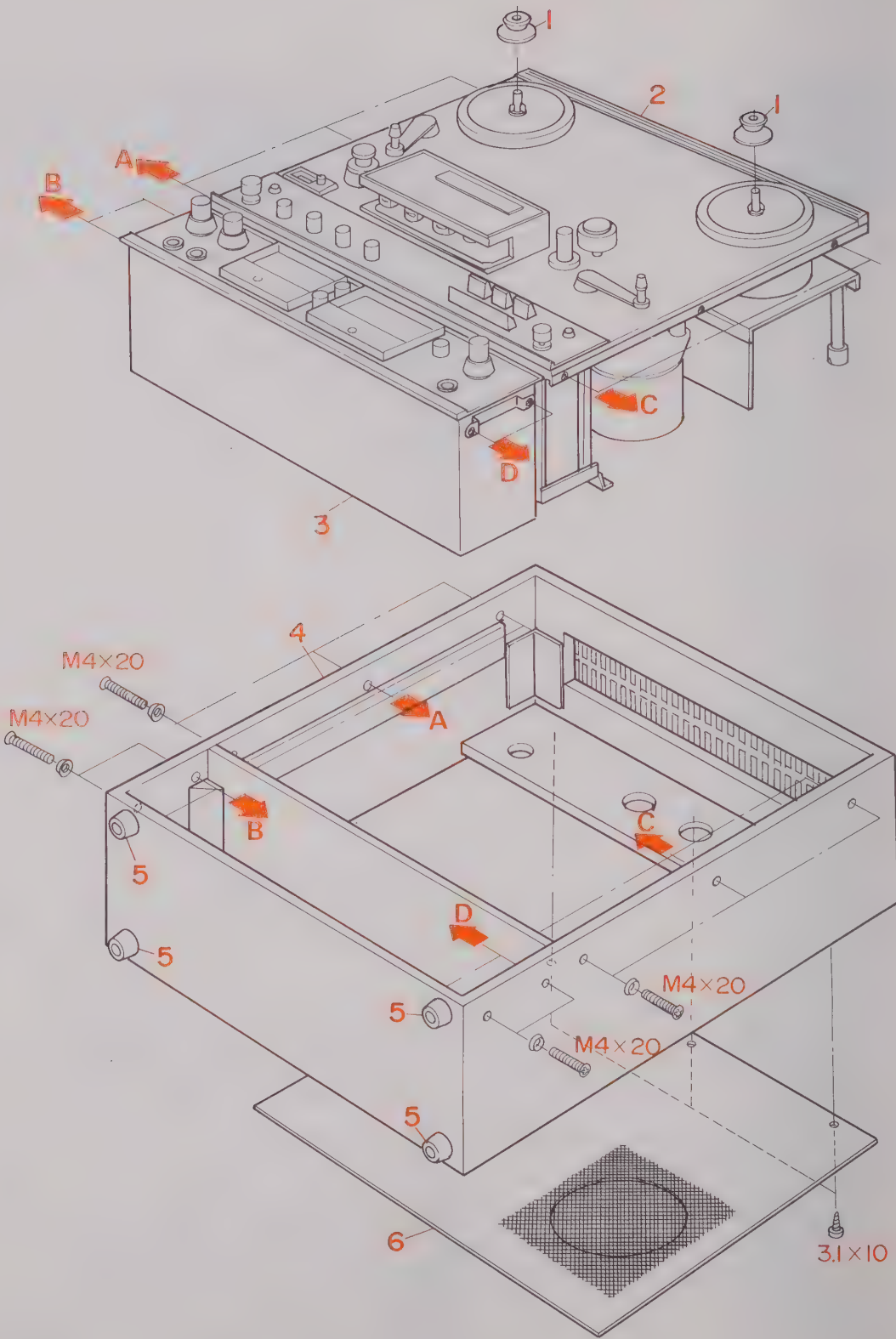
NOTE

The basic design of the A-7010SL/A-7030SL is highly similar to that of the A-7010/A-7030, therefore information in this exploded view may be applied to the A-7010SL/A-7030SL.

Refer to the last page of this section for revised parts to the A-7010/A-7030.

The parts list in this manual is for A-7030/A-7030SL. Since A-7010/A-7010SL is almost identical to A-7030/A-7030SL, only important parts of A-7010/A-7010SL are included in this list.

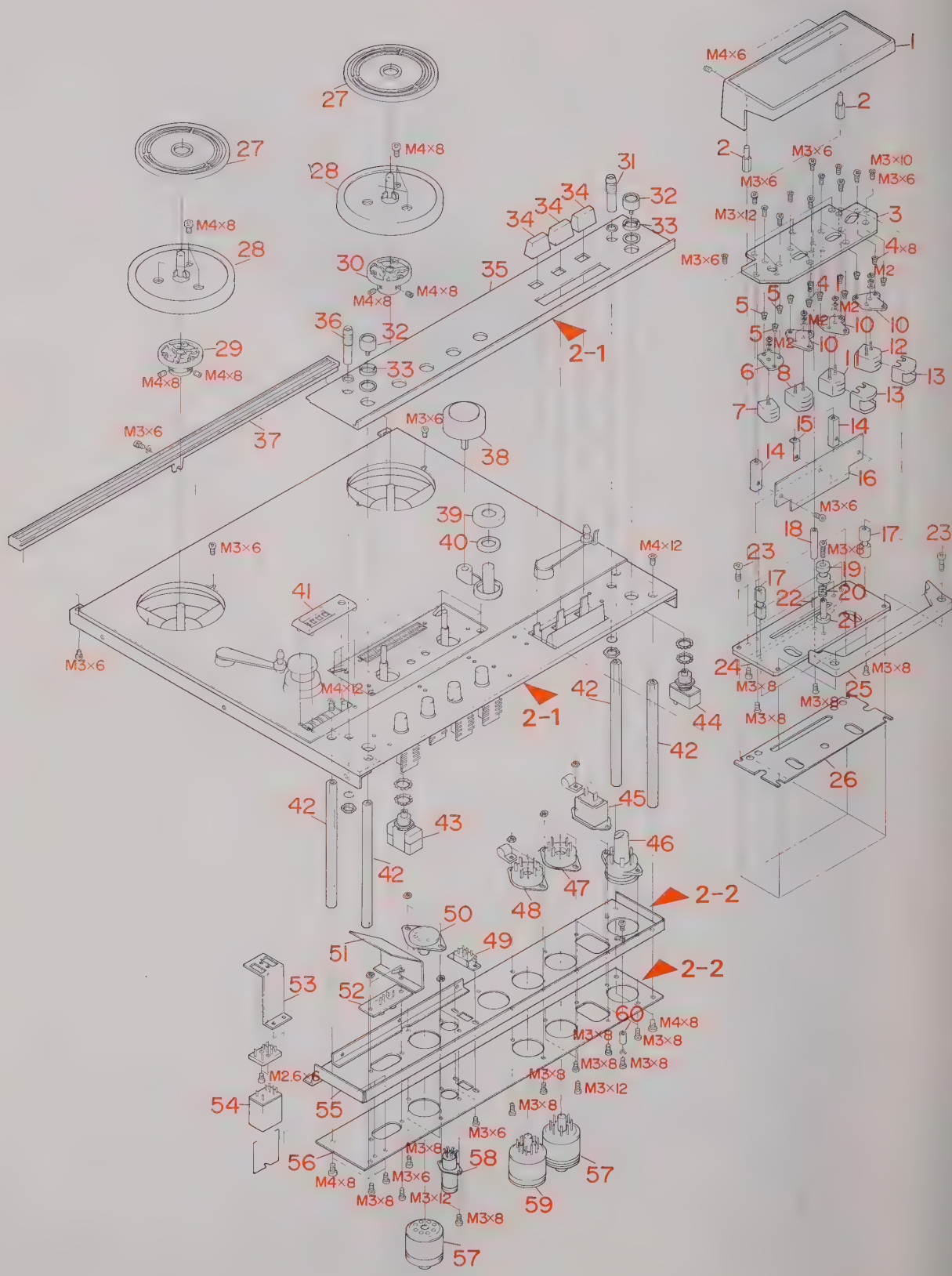
TRIM PARTS



TRIM PARTS

REF	TEAC		1ST	2ND
NO.	PARTS NO.	DESCRIPTION		
1-1	50161580	Reel Clamp		
1-2	50870330	Transport		
1-3	50400610	Preamplifier AR-70(A-7030 only)		
	50400310	Preamplifier AR-60(A-7010 only)		
1-4	50286330	Case, Wooden		
1-5	50283830	Mount Foot		
1-6	50286310	Rear Cover		

ABOVE MAIN CHASSIS



ABOVE MAIN CHASSIS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
2- 1	50134470	Head Housing		
	50135300	Shield Plate, Playback Head		
	50134450	Stick Tape		
2- 2	50133760	Mount Stand-Off, Head Housing		
2- 3	50133734	Head Mount Base Plate		
2- 4	50220500	Spring, Head, B		
	50220452	Spring, Head, C		
2- 5	50220470	Spring, Head, A		
2- 6	50133601	Mount Plate, Erase Head		
2- 7*	50662030	Head, Erase 2 Track		
2- 8*	50665040	Head, Record 2 Track		
2- 9	50133870	Spacer		
2-10	50133830	Mount Plate, Head, C		
2-11	50669040	Head, Playback 4 Track		
2-12*	50668050	Head, Playback 2 Track		
2-13	50133702	Head Shield, A		
2-14	50132610	Mount Stand-off, Head Assy		
2-15	50132601	Mount Bracket, PC Board ^v		
2-16	50480530	PC Board, Head		
2-17	50133810	Tape Guide		
2-18	50241140	Mount Stand-off, Round Type		
2-19	50132640	Tape Guide		
2-20	50220110	Spring, Tape Guide		
2-21	50132630	Tape Guide Shaft		
2-22	50132650	Tape Guide Pin		
2-23	50132770	Mount Screw, Head Assy		
2-24	50133741	Housing Base Plate		
2-25	50133720	Lower Head Protector		
2-26	50133751	Shield Plate, Head Assy		
2-27	50162160	Reel Table Mat		
2-28	50162180	Reel Table		
2-29	50162140	Reel Table Flange, L		
2-30	50162150	Reel Table Flange, R		
2-31	50414260	Lamp, Record On Indicator		
2-32	50252280	Push Button		
	50217520	Screw, Push Button		
2-33	50252290	Trim Nut		
2-34	50252270	Push Button, Operate		
2-35	50112790	Panel, Control (A-7030 only)		
	50112810	Panel, Control (A-7010 only)		
2-36	50414170	Lamp, Power On Indicator		
2-37	50112730	Air Vent		
2-38	50140260	Pinch Roller Assy		
2-39	50122863	Dust Cap		
2-40	50122550	Sponge Oiler		
2-41	50271810	Escutcheon, Index Counter		
2-42	50241150	Mount Stand-off, Chassis Stay		
2-43	50443291	SW, Push, Power		
2-44	50443281	SW, Push, Record		
2-45	50431051	Receptacle, AC		

PARTS LIST

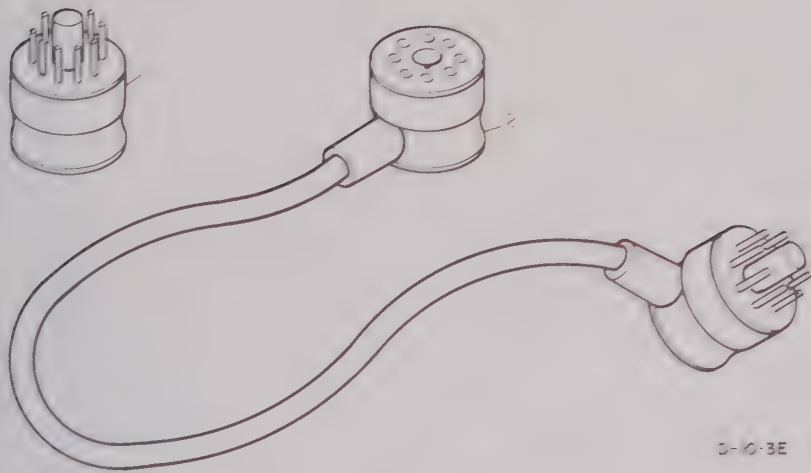
A-7000

ABOVE MAIN CHASSIS

CONTINUED

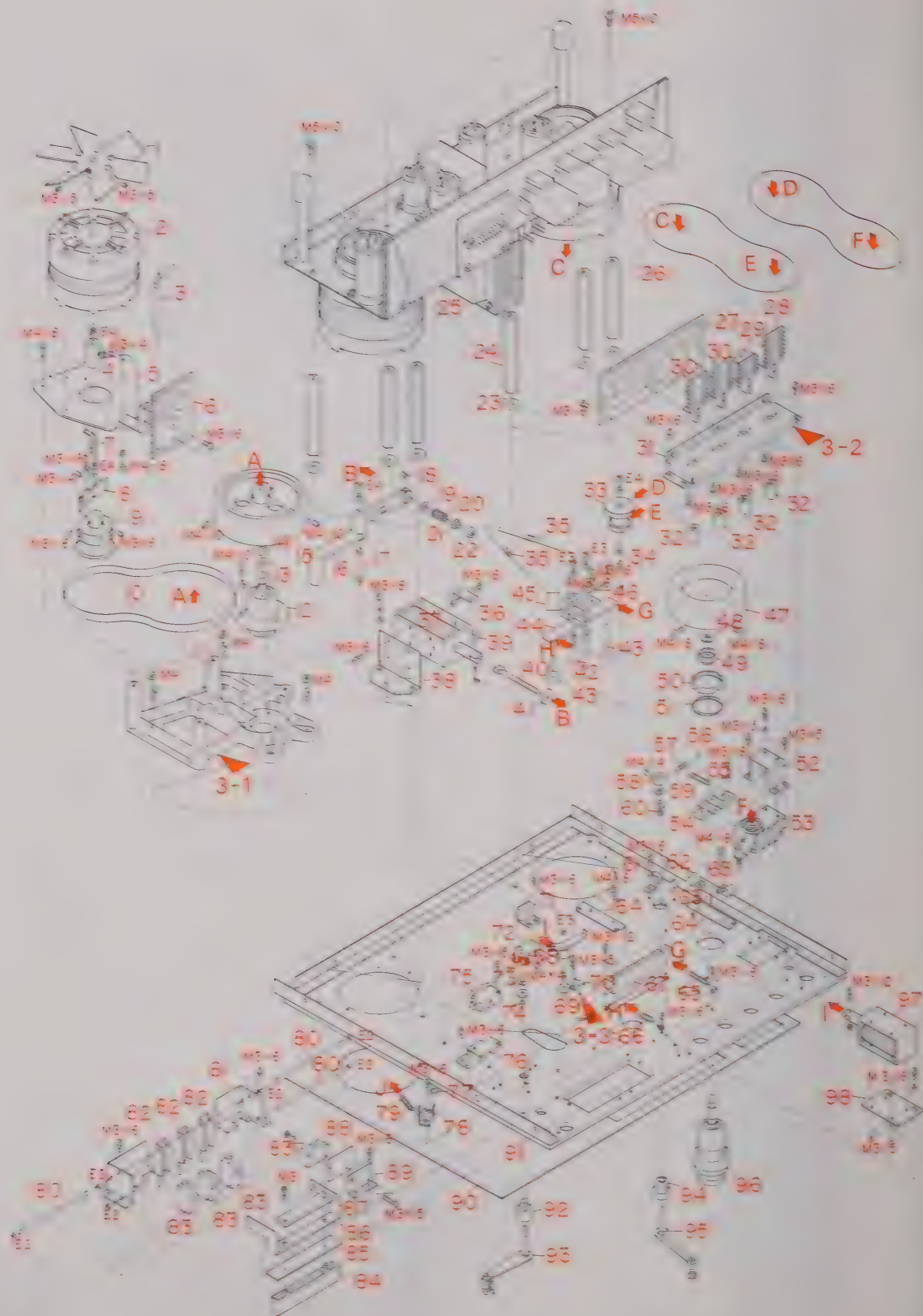
REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
2-46	50412142	Fuse Holder, Voltage Selector		
	50411140	Fuse, 2A		
2-47	50434650	Socket, US 8P Female		
2-48	50432350	Socket, 11P Female, Remote		
2-49	50444221	SW, Slide, Sensing		
2-50	50434090	Socket, US 8P Male		
2-51	50111811	Shield Plate, Head Relay		
2-52	50434630	Pin Jack, 2P		
2-53	50133880	Mount Bracket, Head Relay		
2-54	50610980	Relay Clamp (with Socket)		
2-55	50233940	Connector Chassis		
2-56	50263300	Trim Panel, Plastic(A-7030 only)		
	50111803	Trim Panel, Plastic(A-7010 only)		
2-57	50471250	Connector Cord Assy	*50475130	
2-58	50430250	Receptacle, Pause 6P		
2-59	50430260	Dummy Plug, 8P		
2-60	50241160	Post, GND Terminal		
*A-7010 Head Change				
2- 7	50663030	Head, Erase 4 Track		
2- 8	50666040	Head, Record 4 Track		
2-12	50669040	Head, Playback 4 Track		
* See EXPLODED VIEW, Connector Cord Assy				

CONNECTOR CORD ASSY



REF	TEAC		1ST	2ND
NO.	PARTS NO.	DESCRIPTION		
3-1	50432520	Dummy Plug, 11P Male		
3-2	50475130	Connector Cord Assy		

BELOW MAIN CHASSIS



BELOW MAIN CHASSIS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	1ND
4- 1	50124040	Fan		
4- 2	50701170	Motor, Capstan		
4- 3	50122942	Freq. Change Lever		
4- 4	50277330	Vinyl Washer		
4- 5	50124330	Mount Plate, Capstan Motor(STD only)		
	50124340	Mount Plate, Capstan Motor(UL only)		
4- 6	50540170	PC Board Assy, Noise Suppression(A-7030)		
	50540180	PC Board Assy, Noise Suppression(A-7010)		
4- 7	50122950	Spring, Belt Change Lock		
4- 8	50122771	Belt Change Guide		
4- 9	50124240	Motor Pulley (STD only)		
	50124250	Motor Pulley (UL only)		
4-10	50122850	Belt, Capstan		
4-11	50122901	Capstan Assy Base		
4-12	50124300	Capstan Assy(A-7030 only)		
	50124020	Capstan Assy(A-7010 only)		
4-13	50124170	Steel Washer, B		
4-14	50124380	Plastic Washer, A		
4-15	50124220	Flywheel, Capstan		
4-16	50141594	Pinch Roller Arm		
4-17	50141571	Roller Arm Shaft		
4-18	50151970	Screw, Lifter Spring		
4-19	50141581	Washer		
4-20	50220041	Spring, Pressure		
4-21	50141501	Lock Nut, B		
4-22	50141511	Lock Nut, A		
4-23	50277650	Washer		
4-24	50241190	Mount Stand-off, Base Plate		
4-25	50160250	Reel Motor Assy		
4-26	50277590	Belt, Index Counter		
4-27	50481860	PC Board Assy, Record Relay Amp(A-7030)		
		PC Board Assy, Record Relay Amp(A-7010)		
4-28	50443300	SW, Push, Tape Speed		
4-29	50443320	SW, Push, Reel Selector		
4-30	50443310	SW, Push		
4-31	50273031	Mount Plate, Operate SW		
4-32	50252320	Push Button, A		
4-33	50124280	Counter Idler Pulley		
4-34	50152580	Idler Shaft		
4-35	50151963	Spring, Lifter		
4-36	50452060	Terminal Strip, 1L2P		
4-37	50616393	Solenoid, Capstan		
4-38	50141550	Mount Plate, Solenoid		
4-39	50124070	Plunger Pin, A		
4-40	50121530	Screw, Pressure Adjust		
4-41	50277740	Felt Washer		
4-42	50151981	Lifter Arm Shaft		
	50277340	Plastic Washer		
4-43	50277350	Rubber Ring		
4-44	50150130	Lifter Arm Assy		

BELOW MAIN CHASSIS

(CONTINUED)

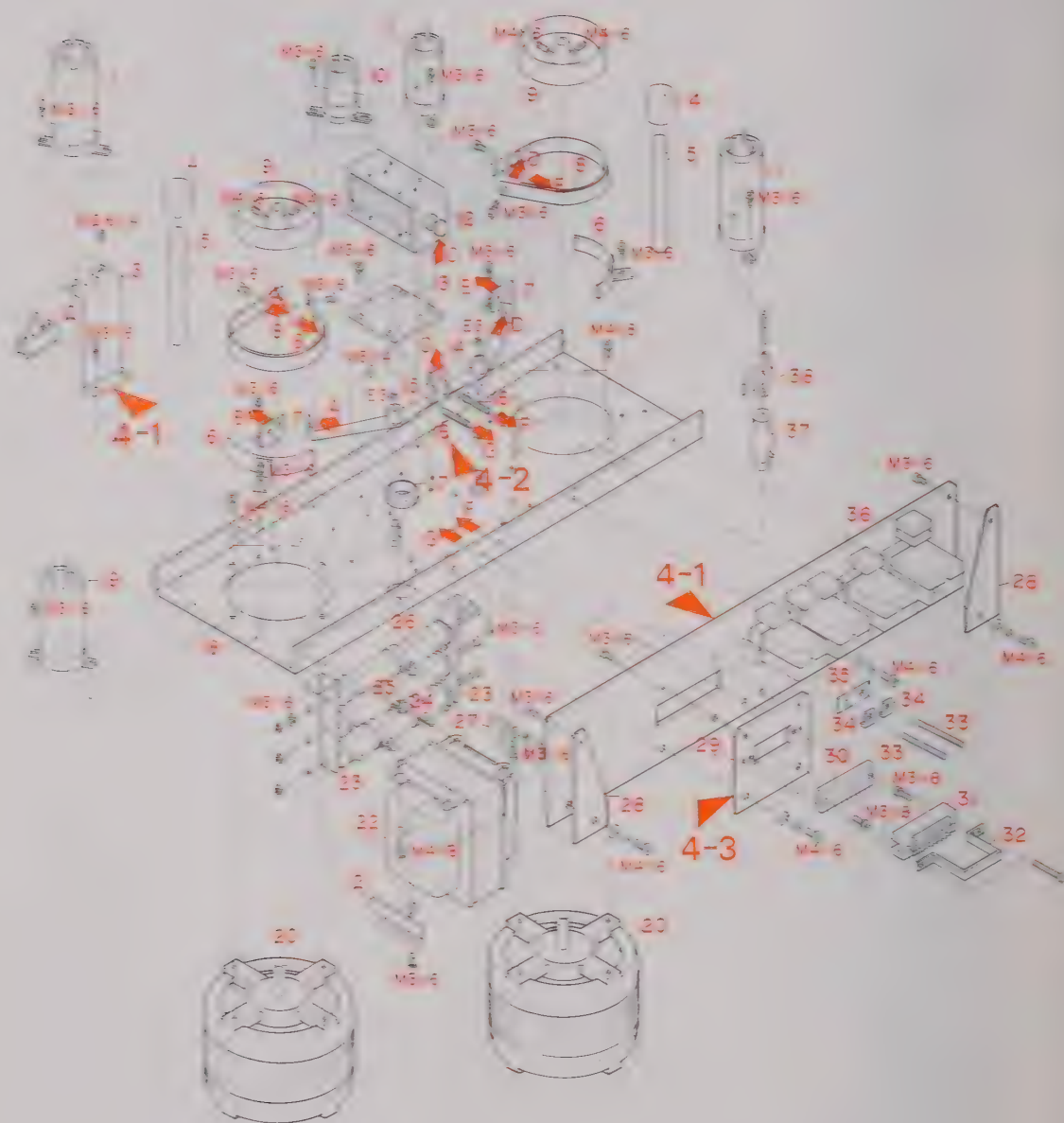
REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-45	50152510	Lifter Arm Lower, R		
4-46	50152520	Lifter Arm Lower, L		
4-47	50122141	Flywheel, Impedance Roller		
4-48	50221210	Spring Washer		
4-49	50124110	Shoulder Washer, Impedance Roller		
4-50	50121430	Collar Nut		
4-51	50121440	Washer		
4-52	50124290	Mount Bracket, Index Counter		
4-53	50585050	Index Counter		
4-54	50453160	Terminal Strip		
4-55	50220030	Spring, Tension Arm Return		
4-56	50277400	Vinyl Tube		
4-57	50123140	Spring Retainer Pin		
4-58	50277390	Nut		
4-59	50221200	Spring Washer		
4-60	50182140	Thrust Washer		
4-61	50111710	Bracket, Limit Stop		
	50277620	Cushion		
4-62	50181360	Pin, Limit Stop		
4-63	50276290	Wire Clamp, B		
	50276280	Wire Clamp, A		
4-64	50133770	Mount Plate, Head Assy		
4-65	50152020	Spring, Lifter Return		
4-66	50152570	Spring, Lifter Return, A		
4-67	50438130	Connector, 18P		
4-68	50152550	Cue Arm (A-7030 only)		
4-69	50152561	Cue Arm Shaft (A-7030 only)		
4-70	50270771	Wire Clamp		
4-71	50272940	Mount Bracket, Magnet		
	50181250	Magnet		
4-72	50277412	Micro SW Actuator Arm		
4-73	50221200	Spring Washer		
4-74	50182140	Thrust Washer		
4-75	50446180	SW, Micro		
4-76	50272951	Mount Bracket, Micro SW		
4-77	50182950	Cushion, Rubber		
4-78	50141561	Limit, Tension Arm R		
4-79	50182311	Spring, Tension Arm R		
4-80	50252301	SW Mount Rod		
4-81	50273050	Bracket, SW, A		
4-82	50273070	Bracket, SW, C		
4-83	50446090	SW, Micro		
4-84	50252340	Push Button, Stop		
4-85	50273120	Cushion, Rubber		
4-86	50273060	Bracket, SW, B		
4-87	50273150	Bracket, SW, D		
4-88	50271790	Insulate Plate		
4-89	50273040	Mount Bracket, SW		
4-90	50112780	Panel, Trim		

BELOW MAIN CHASSIS

CONTINUED

REF	TEAC		1ST	2ND
NO.	PARTS NO.	DESCRIPTION		
4-91	50128030	Panel, Chassis		
4-92	50181920	Arm Bushing, Right		
4-93	50180510	Tension Arm, Right		
4-94	50182870	Arm Bushing, Left		
4-95	50180500	Tension Arm, Left		
4-96	50124083	Impedance Roller Assy		
4-97	50616431	Solenoid, Cue(A-7030 only)		
4-98	50616410	Mount Plate, Cue Solenoid(A-7030 only)		

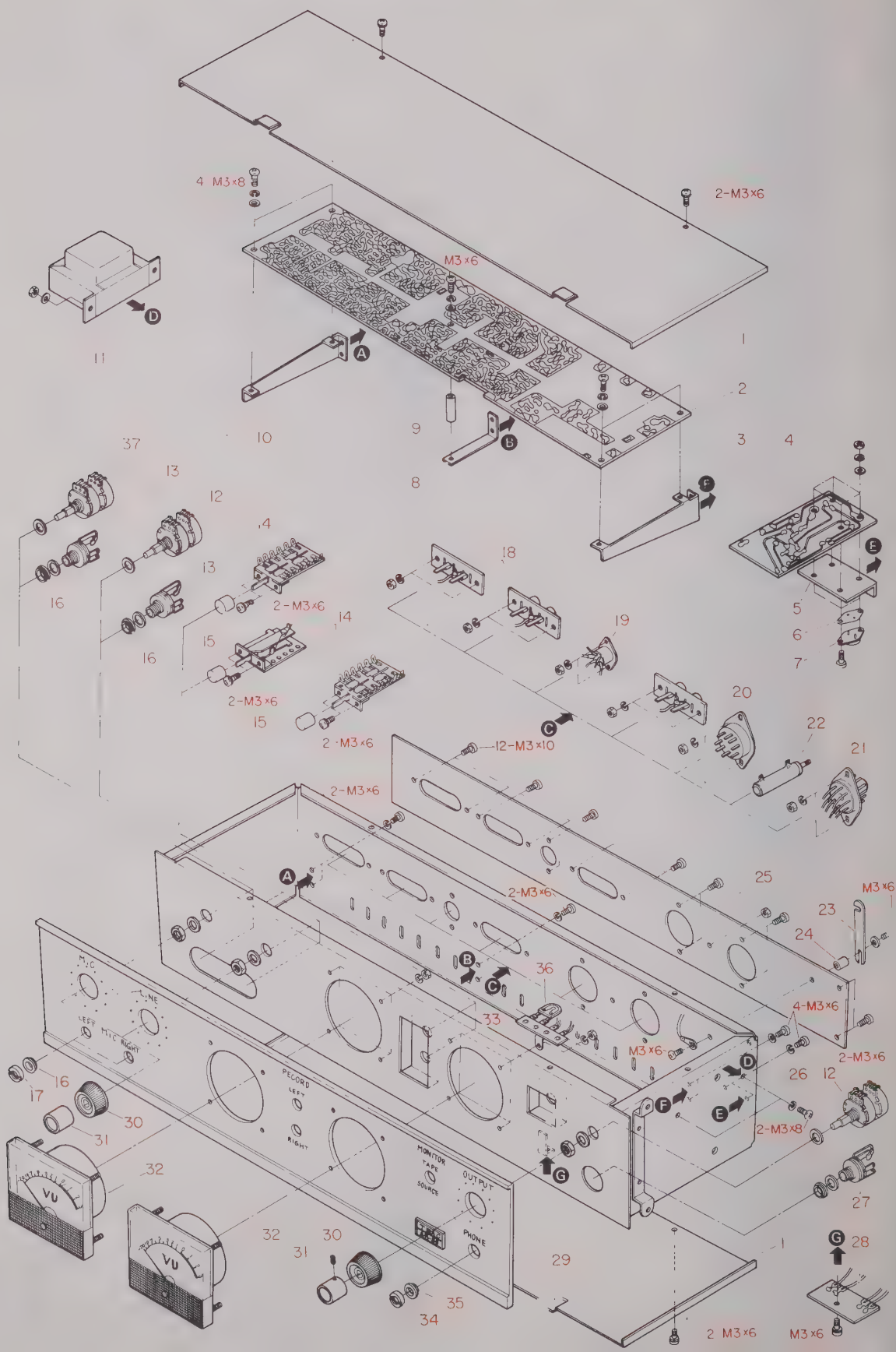
REEL MOTOR ASSY



REEL MOTOR ASSY

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
5- 1	50545680	Cap., MP 4 + 1uF/250V		
5- 2	50444210	SW, Slide, Freq. Selector		
5- 3	50273131	Mount Bracket, Slide SW		
5- 4	50321740	Rubber Foot		
5- 5	50241200	Mount Stand-off, Deck Support		
5- 6	50172761	Brake Retainer		
5- 7	50172770	Mount Bracket, Brake Band		
5- 8	50172780	Brake Band		
	50277610	Felt		
5- 9	50172800	Brake Drum		
5-10	50551170	Cap., Elec. 100uF/16V		
5-11	50551120	Cap., Elec. 100uF/160V		
5-12	50616403	Solenoid, Brake		
5-13	50616420	Mount Plate, Solenoid		
5-14	50172810	Brake Arm, Left		
5-15	50172790	Brake Arm, Right		
5-16	50172820	Spring, Brake		
5-17	50277710	Grommet		
5-18	50162210	Mount Plate, Reel Motor		
5-19	50545310	Cap., MP 1 + 2.8uF/250V		
5-20	50702260	Motor, Reel EM-115A		
5-21	50452020	Terminal Strip, 1L3P		
5-22	50561780	Transformer, Power Supply		
5-23	50277660	Mount Bracket, Resistor		
5-24	50524372	Resistor, Wire Wound 200 ohm		
5-25	50524030	Resistor, Wire Wound 500 ohm		
5-26	50524402	Resistor, Wire Wound 1k ohm		
5-27	50452010	Terminal Strip, 1L3P		
5-28	50277630	Reinforcing Plate		
5-29	50277670	Mount Plate, Connector		
5-30	50436200	Connector, 24P Male		
5-31	50438140	Connector, 24P Female		
5-32	50277680	Connector Handle		
5-33	50277360	Screw, Brake Adjustment		
5-34	50277370	Nut Plate		
5-35	50277640	Plate, Screw Guide		
5-36	50481881	PC Board Assy, Control Relay (A-7030)		
	50481870	PC Board Assy, Control Relay (A-7010)		
5-37	50524360	Resistor, Wire Wound 10 ohm/5W		
5-38	50452060	Terminal Strip, 1L2P		

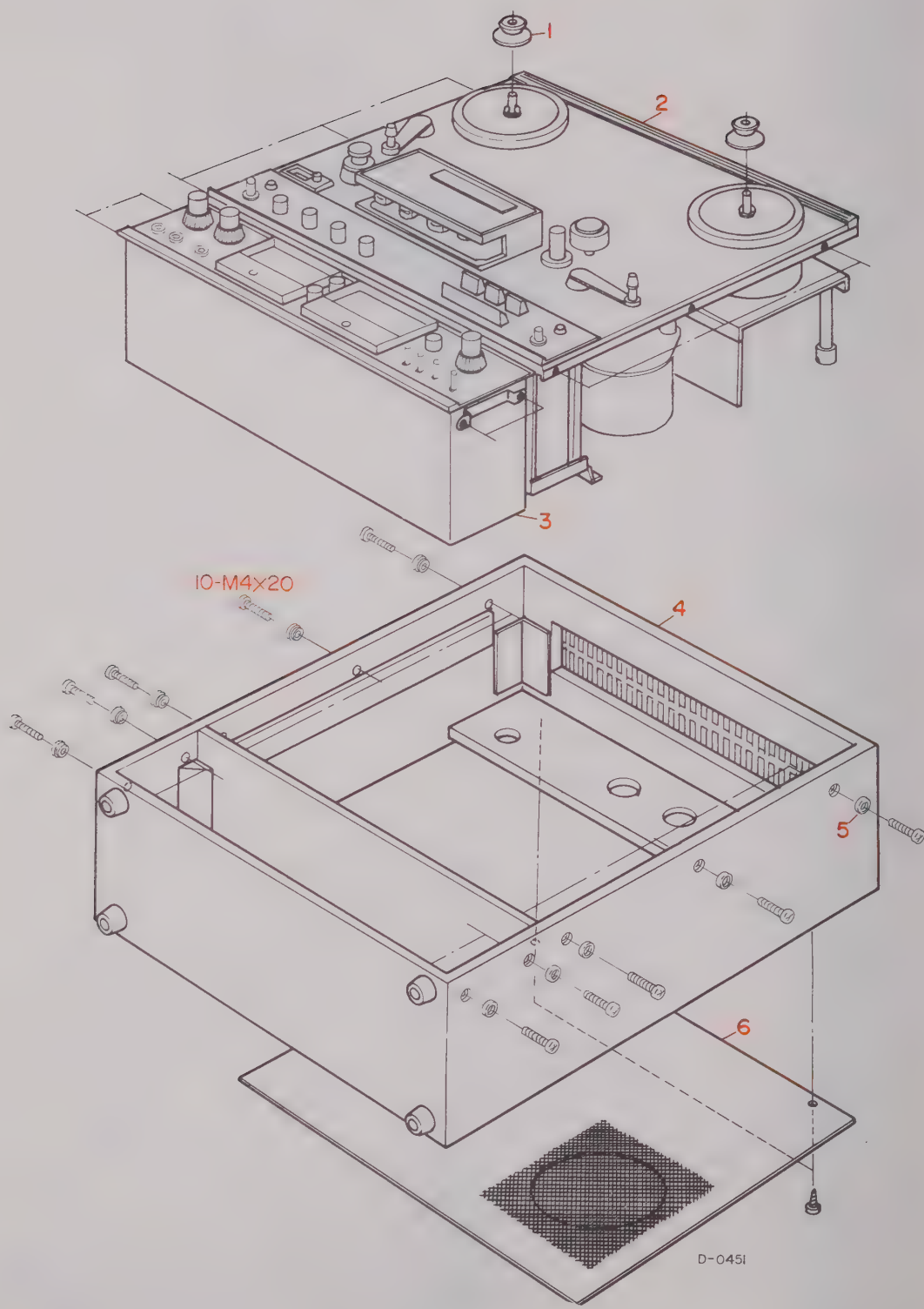
PREAMPLIFIER CHASSIS



PREAMPLIFIER CHASSIS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
6- 1	50233831	Cover, Amp Chassis		
6- 2	50481900	PC Board Assy, Preamplifier		
6- 3	50231920	Mount Bracket, B		
6- 4	50563160	PC Board Assy, Bias Osc.		
6- 5	50233860	Mount Plate, Power Transistor		
6- 6		Insulate Sheet		
6- 7	50423420	Transistor, Power 2SC-491(Y)		
6- 8	50231930	Mount Bracket, C		
6- 9	50240630	Mount Stand-off		
6-10	50231910	Mount Bracket, A		
6-11	50561321	Transformer, Power		
6-12	50537090	Potentiometer, Dual, 100k ohm		
6-13	50430100	Phone Jack, Microphone, Single		
6-14	50443270	SW, Push, Record		
6-15	50252320	Push Button		
6-16	50272620	Insulate Washer		
6-17	50231951	Trim Nut, A		
6-18	50434630	Pin Jack, 2P		
6-19	50430010	Connector, DIN		
6-20	50434650	Socket, US 8P Female		
6-21	50434090	Socket, US 8P Male		
6-22	50527020	Resistor, Wire Wound 320 ohm/10W		
6-23	50277490	Shorting Bar		
6-24	50241160	Post, GND Terminal		
6-25	50232021	Trim Panel, Plastic, Preamp.		
6-26	50233820	Chassis, Preamplifier		
6-27	50432670	Phone Jack, Headphone, 3 cond.		
6-28	50277530	PC Board Assy, Meter Adjust		
6-29	50231991	Panel, Amp Trim		
6-30	50252331	Knob, Inner		
6-31	50252261	Knob, Outer		
6-32	50581142	VU Meter		
6-33	50452020	Terminal Strip 1L3P		
6-34	50231961	Trim Nut, B		
6-35	50272620	Insulate Washer		
6-36	50533060	Trimmer Resistor, 150k ohm		
6-37	50537100	Potentiometer, Dual, 10k ohm		

TRIM PARTS

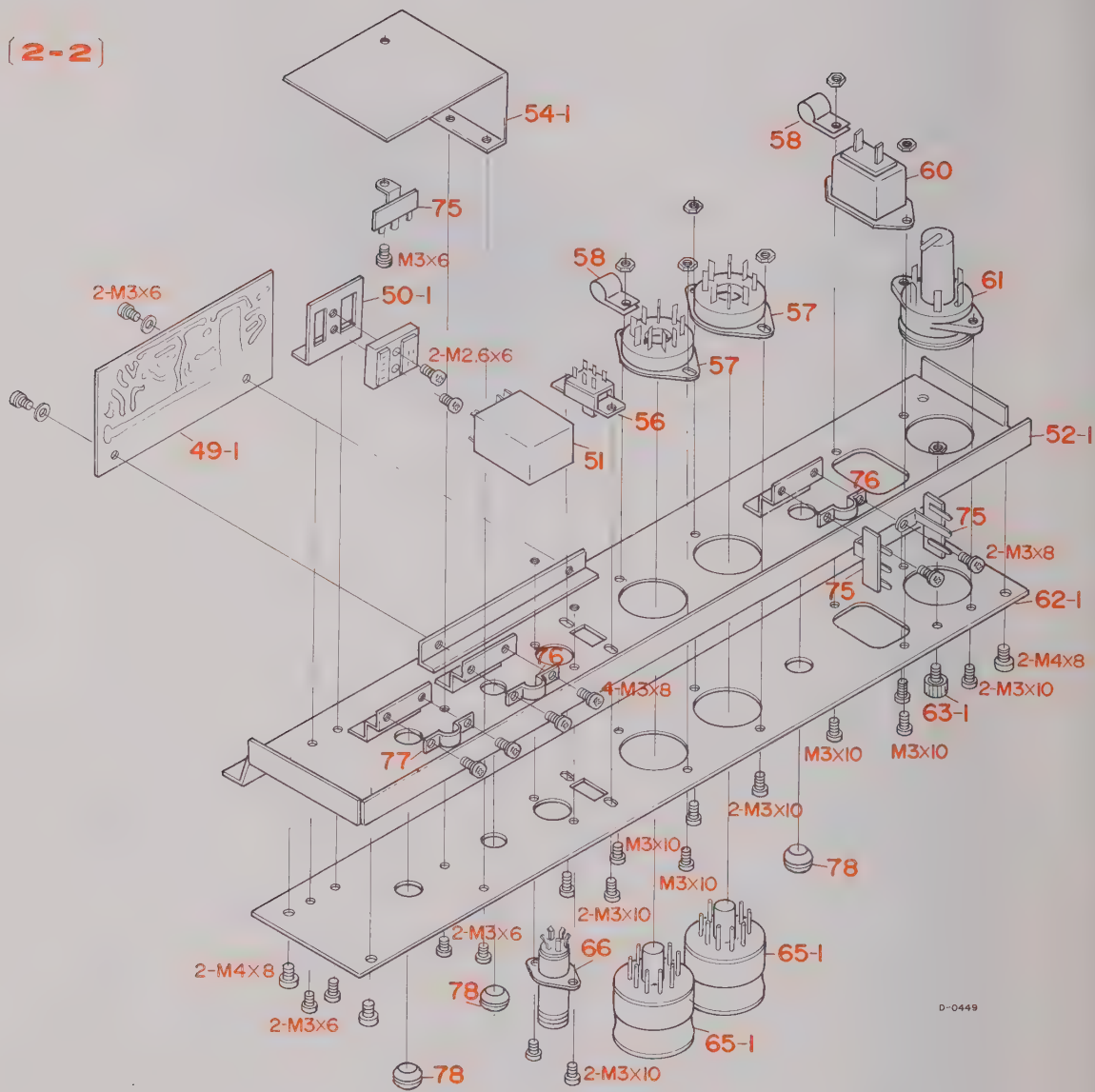


TRIM PARTS

REF	TEAC		
NO.	PARTS NO.	DESCRIPTION	
1-1	50161580	Reel Holder	
1-2	50870330	Tape Transport	
1-3	50400610	Preamplifier AR-70SL	
1-4	50287521	Case, Wooden	
1-5	50296930	Cup Washer	
1-6	50286310	Rear Cover	

**ABOVE MAIN CHASSIS
PARTIAL**

(2-2)



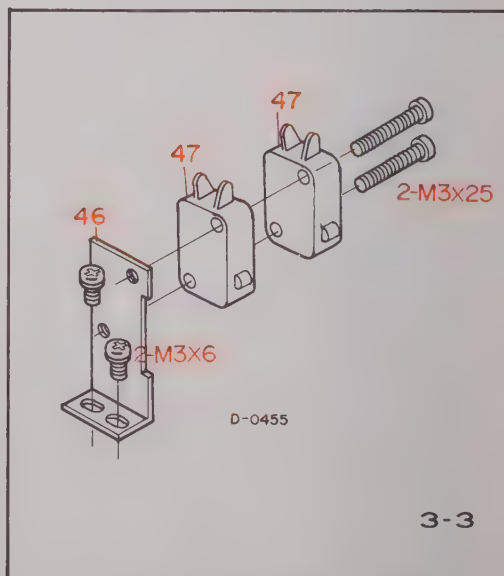
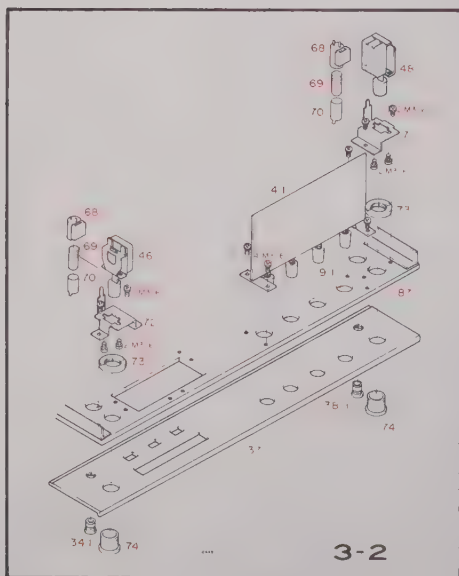
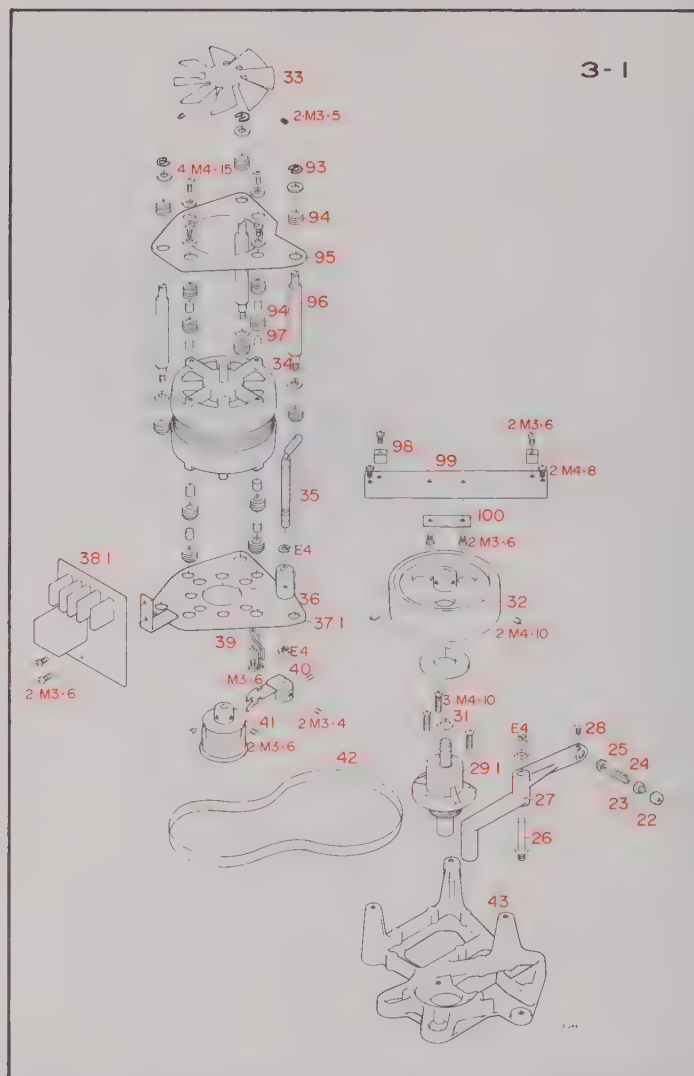
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ABOVE MAIN CHASSIS
PARTIAL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
2-49-1*	50489280	PC Board Assy, Auto Reverse Amp		
2-50-1	50135350	Mount Bracket, Head Relay		
2-51	50610420	Relay, Head		
2-52-1	50234921	Connector Chassis(A-7030SL only)		
2-54-1	50135360	Shield Plate, Head Relay		
2-56	50444221	SW, Slide, Repeat		
2-57	50432350	Socket, 11P Female		
2-58	50276280	Wire Clamp, A		
2-60	50431051	Receptacle, AC		
2-61	50412142	Fuse Holder, Voltage Selector		
2-62-1	50113261	Trim Panel, Plastic (A-7030SL)		
	50113270	Trim Panel, Plastic(A-7010SL)		
2-63-1	50454071	Post, GND Terminal		
2-65	50432510	Dummy Plug, 11P		
2-66	50430270	Receptacle, Pause 6P		
	50430260	Dummy Plug, Pause 6P		
2-75				
2-76	50279480	Clamp, A		
2-77	50279490	Clamp, B		
2-78	50323011	Cushion, Rubber		

* Used on A-7010SL only.

BELOW MAIN CHASSIS PARTIAL

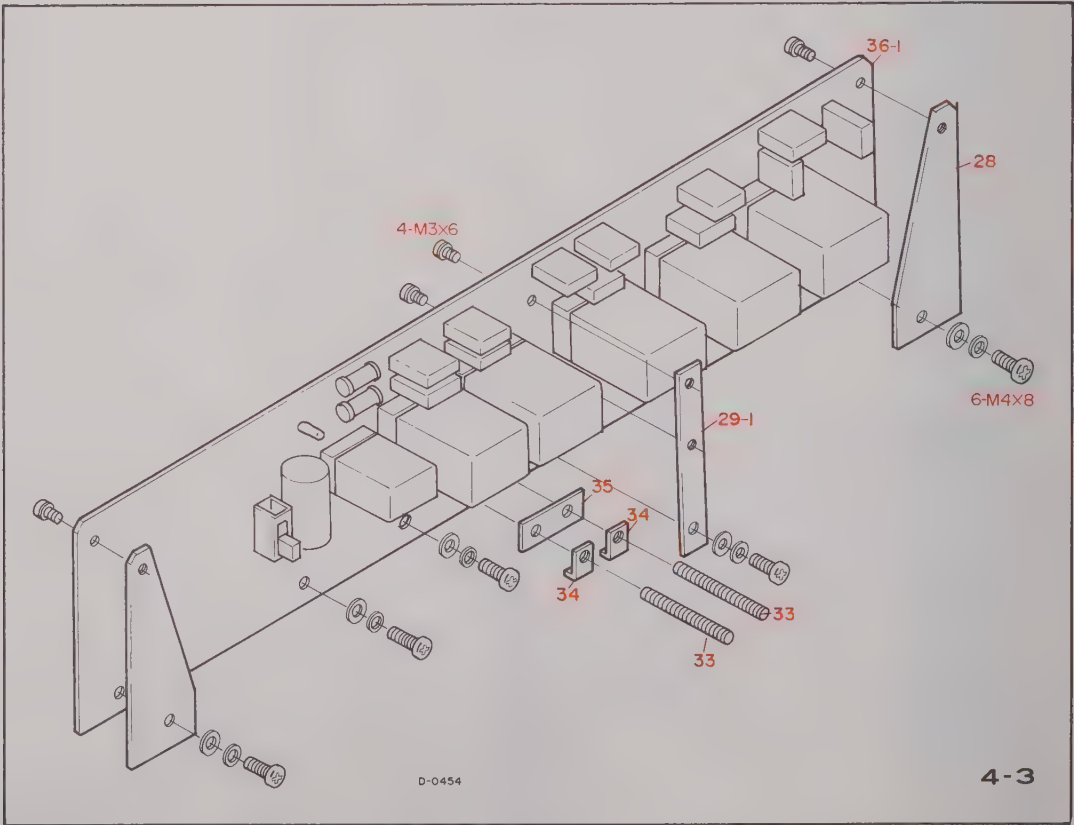
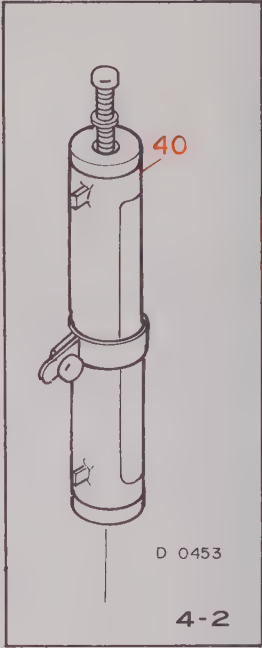
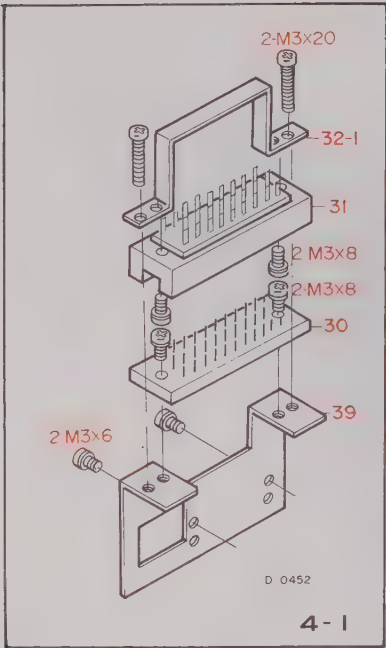


BELOW MAIN CHASSIS

PARTIAL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND	3RD
(3-1)					
4-22	50141501	Lock Nut, A			
4-23	50141511	Lock Nut, B			
4-24	50220041	Spring, Pressure			
4-25	50141581	Washer			
4-26	50141571	Roller Arm Shaft			
4-27	50141594	Pinch Roller Arm			
4-28					
4-29-1	50120360	Capstan Assy (A-7010SL)			
	50120350	Capstan Assy (A-7030SL)			
4-31	50124180	Plastic Washer			
4-32	50124220	Flywheel, Capstan			
4-33	50124040	Fan			
4-34	50701170	Motor, Capstan			
4-35	50122943	Freq. Change Lever			
4-36					
4-37-1	50124331	Mount Plate, Capstan Motor			
4-38-1	50489220	PC Board Assy, Noise Suppression (A-7010SL only)			
	50489290	PC Board Assy, Noise Suppression (A-7030SL only)			
4-39	50122950	Spring, Belt Change Lock			
4-40	50122772	Belt Change Guide			
4-41	50124240	Motor Pulley (STD only)			
4-42	50122850	Belt, Capstan			
4-43	50122901	Capstan Assy Base			
4-93	50277730	E Clip			
4-94	50706211	Cushion, Rubber			
4-95	50124310	Mount Plate, Motor Support			
4-96	50241220	Mount Stand-off, Capstan Motor			
4-97	50241210	Spacer			
4-98					
4-99	50234721	Angle, Thrust			
4-100	50277230	Plate, Thrust			
(3-3)					
4-46	50273142	Mount Bracket, Micro SW			
4-47	50441180	SW, Micro V-1A44			
* Used on A-7010SL only.					
(2-1) (3-2)					
4- 4-1	50489340	PC Board Assy, Record Relay (A-7030SL)			
	50489270	PC Board Assy, Record Relay (A-7010SL)			
4- 9-1	50253500	Push Button, B			
4-34-1	50415180	Bezel, Record On Indicator			
4-37-1	50113200	Panel, Control			
4-38-1	50415170	Bezel, Power On Indicator			
4-46-1	50443410	SW, Push, Record (Non Lock)			
4-48-1	50926280	SW, Push, Power			
4-68	50415030	Socket, Lamp			
4-69	50414131	Lamp, 8V			
4-70	50419050	Pilot Cover			
4-71	50234780	Mount Bracket, Power SW			
4-72	50234770	Mount Bracket, Record SW			
4-73	50210470	Nut			
4-74	50253510	Bezel, Push Button			
4-87-1	50113190	Panel, Chassis			

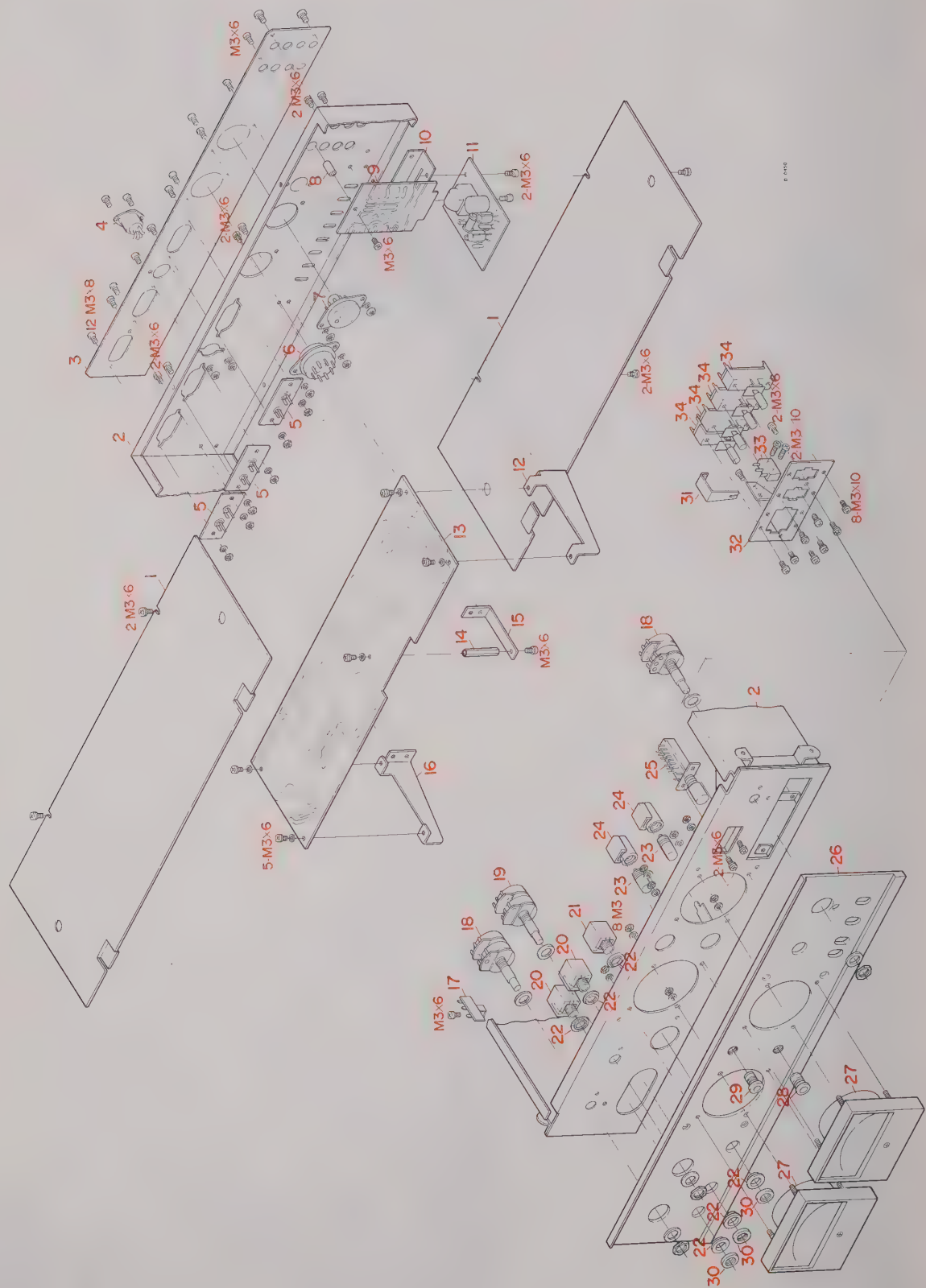
REEL MOTOR ASSY
PARTIAL



REEL MOTOR ASSY
PARTIAL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
4-2				
5-40	50524412	Resistor, Wire Wound 100 ohm/30W (Used on A-7010SL only)		
4-1				
5-32-1	50287490	Connector Handle		
5-31	50438200	Connector, 34P Female		
5-30	50436390	Connector, 34P Male		
5-29-1	50234740	Mount Plate, Connector		
4-3				
5-28	50277630	Reinforcing Plate		
5-29-1	50234790	Reinforcing Plate		
5-33	50277360	Screw, Brake Adjustment		
5-34	50277370	Nut Plate		
5-35	50277641	Plate, Screw Guide		
5-36-1	50489700	PC Board Assy, Control Relay (A-7030SL only) PC Board Assy, Control Relay (A-7010SL only)		

PREAMPLIFIER CHASSIS



PREAMPLIFIER CHASSIS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1ST	2ND
6- 1	50233831	Cover, Amp Chassis		
6- 2	50234801	Chassis, Preamplifier		
6- 3	50113251	Trim Panel, Plastic, Preamp.		
6- 4	50430010	Connector, DIN		
6- 5	50434631	Pin Jack, 2P		
6- 6	50434650	Socket, US 8P Female		
6- 7	50434090	Socket, US 8P Male		
6- 8	50241730	Spacer		
6- 9	50489320	PC Board Assy, Bias Adjust		
6-10	50234880	Mount Angle, Osc. Assy		
6-11	50489300	PC Board Assy, Bias Osc.		
6-12	50234850	Mount Bracket, A		
6-13	50489310	PC Board Assy, Preamplifier		
6-14	50241720	Mount Stand-Off		
6-15	50231930	Mount Bracket, C		
6-16	50234860	Mount Bracket, B		
6-17	50452170	Terminal Strip, 1L2P		
6-18	50537090	Potentiometer, Dual, 100k		
6-19	50537100	Potentiometer, Dual, 10k		
6-20	50430240	Phone Jack, Microphone, Single		
6-21	50432450	Phone Jack, Headphone 3 cond.		
6-22	50272620	Insulate Washer, B		
6-23	50414131	Lamp, 8V		
6-24	50415030	Socket, Lamp		
6-25	50443630	SW, Push, Monitor		
6-26	50113240	Panel, Amp Trim		
6-27	50581301	VU Meter		
6-28	50415190	Bezel, Lamp (Violet)		
6-29	50415180	Bezel, Lamp (Red)		
6-30	50231951	Trim Nut		
6-31	50235230	Bracket, Micro SW		
6-32	50235220	Mount Plate, Toggle SW		
6-33	50446330	SW, Micro		
6-34	50937580	SW, Toggle		

15 MANUAL CHANGES

REVISIONS

Change notices, recommended modifications etc. will be issued for the models in this manual, when appropriate.

This sheet is in loose leaf form and should be filed behind this page for convenient reference.

